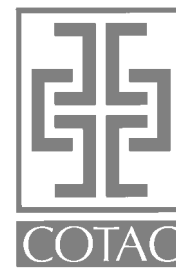


# Newsletter

NUMBER 14

April 1999



CONFERENCE  
ON TRAINING IN  
ARCHITECTURAL  
CONSERVATION

COTAC is supported by the Heritage Grant Fund, Department for Culture, Media and Sport

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## INTRODUCTION

A belated Happy New Year to you all and sorry that it has not been possible to publish this issue until now. Where did 1998 go? Much has been happening in the Conservation world and it is good to have the opportunity to bring you up to date.

We have made some changes to the format for this issue, of which we hope you approve. These include the contents list on this page. In addition we have introduced a news section carrying snippets of recent news in conservation. As ever, we welcome your comment on the topics or format of the Newsletter. We are particularly keen to express your views on matters related to Building Conservation, training, examples of good and bad practice and to include news about your organisation and projects. So please let me have your contributions, ideally word-processed, on disk.

One very sad piece of news is the death of Zibby Garnett earlier this year after a long battle with cancer. She was a wise person and a wonderful colleague. She was a founding member of the COTAC Network and I will remember her enthusiasm, as we planned its launch at the Restorex exhibition in 1993. She was immediately into the thick of things, undertaking with her students on the Conservation Crafts Course at Lincoln to furnish the stand. The resulting design, incorporat-

ing a "trompe-l'oeil" and purpose made "settle" were a credit to the management, craft and design skills of her and her students. She will be greatly missed by all who were privileged to know her. An obituary by Hugh Matheson from the Independent of 5th February is reproduced on page 13.

Please note that we have moved and our new address is included at the foot of this page, telephone numbers remain as before. We also have an **email address:** [cotac@tcp.co.uk](mailto:cotac@tcp.co.uk) and a **website:** <http://homepages.tcp.co.uk/cotac/>. Currently, information on the latter is limited to contact details but we will be building the content over the coming months to include COTAC leaflets, course list, the Newsletters, research papers and other matters of interest.

How many of you, like me, feel that you would like the world to stop for a week while you get organised? Sound familiar? Well we had all better get used to living with uncertainty according to Professor Oren Harari, who proposes that we must embrace chaos if we are to survive in the current turbulent business environment. An article reproduced from *Project Manager Today* explores his thoughts on project management. Many of his comments are equally applicable to any firm in construction or indeed other business in the modern world.

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DIRECTOR: Richard Davies Dip. Arch., (Hons.) RIBA HON. TREASURER: Stephen Bond MA, ARICS, Grad. Dip. Cons. AA

We include in this issue the first part of a report on the 1998 Conference held in association with the Royal Commission for Historic Monuments of England in Swindon. The remainder will be in the next issue. The Conference focused on the importance of recording, the uses of modern technology in conservation and its application for training and education. It was also an opportunity to report on progress with the Beta project developing training material. This is particularly significant since it has been produced in co-operation with representatives of the industry in each partner country. The project and the conference were supported by the Leonardo da Vinci Programme of the European Union.

The Conference this year will be held in conjunction with the Building Research Establishment at its headquarters in Garston near Watford, on Friday 5th November. The theme is Profiting from Conservation and the aim is to provide practitioners and owners with tools for evaluating conservation options. It will consider such matters as whole life costing, maintenance cycles, cost effective re-use and repair. We hope to identify related training resources available in the UK and mainland Europe. Again we have significant support from the European Union through the Leonardo programme. There will be opportunities to visit the BRE facilities and see current research projects and techniques particularly relevant to building conservation. An evening reception and a Conference dinner will be followed on Saturday 6th by a study tour in the region. We are assured by those who have made the conference a two-day event that the benefits are only outweighed by the enjoyment. Demand for places is likely to be high so pre-register your interest now by sending or faxing your details to Robin Rolfe.

At the last meeting of the COTAC Standing Conference, Roger France raised a series of questions about S/NVQs on behalf of the Course Directors Forum. Richard Davies in answering these provides useful clarification of a number

of matters about these new qualifications on page 28. We are pleased to confirm that a partner agreement has been completed between COTAC and Edexcel for higher-level conservation qualifications (Levels 4 & 5). This is based on the principle that the monitoring process will be carried out by appropriately qualified representatives of the respective professions. The aim will be to ensure that there is an effective feedback mechanism and also, as a result of regular reports, a process of constant review. We now await final approval of the three Conservation Qualifications from the Qualification Curriculum Authority.

Also at the last Standing Conference, John Taylor, recently appointed Director of the Building Crafts College gave a comprehensive overview of building crafts training structures in the United Kingdom. This is reproduced on page 17.

We are pleased to announce that COTAC has been awarded a five year Training project as part of the King's Cross Partnership (SRB programme). We will include a more detailed report in the next issue but in outline the aim is to offer courses at Foundation and level 2 initially, with the opportunity to progress to higher levels. Local on-site live training experience is seen as a fundamental part of this work.

We remain a small team, dependent on voluntary support. With the prospects of a number of new initiatives, COTAC is likely to be even more stretched than at present. If you have any staff whose development you feel would benefit from the experience of working with us, we would welcome their secondment. Arrangements can be flexible, but we are looking for commitment to an initial period of at least three months and an input of at least one day per week. Anyone interested please contact Richard Davies at COTAC for more detail.

Best wishes to all our readers for an enlightened lead-up to the new millennium. We look forward to hearing from you. Copy date for the next issue is Friday 25th June.

*Graham Lee, Project Manager*



*Former Swindon Town Hall, venue for COTAC 1998 International Conference*

# NEWS SNIPPETS



*Renovation of Whaley's Buildings, Armagh, Northern Ireland.*

## **CATALYTIC CONVERSION – REVIVE HISTORIC BUILDINGS TO REGENERATE COMMUNITIES**



Written by SAVE Britain's Heritage in association with the Architectural Heritage Fund, the United Kingdom Association of Building Preservation Trusts and the Institute of Historic Building Conservation, this publication is a helpful reference for the importance of Conservation as a Catalyst for Regeneration.

Future UK planning policy is dominated by four major concerns:

- to reverse urban decay and revitalise towns and cities as places to live and work;
- to meet the challenge of projected demand for housing – 4 million plus;
- to protect the countryside from harm;
- sustainability.

Fifteen case studies illustrate successful regeneration and a series of 9 recommendations to encourage the future importance of Conservation.

Copies of the leaflet and further information from: SAVE Britain's Heritage, 70 Cowcross Street, London EC1M 6EJ Tel: 0171 253 3500, Fax: 0171 253 3400, email: save@btinternet.com Web site: www.savebritainsheritage.org The Online register of buildings at risk may be accessed via this web site.



## **LOTTERY FUNDS**

### *1 Townscape Heritage Initiative – Heritage Lottery Fund*

This Initiative is intended to support strategic action by partnerships of public and other bodies to address problems of disrepair, erosion of quality and under-use of buildings in historic areas of social and economic need where buildings predominate.

It is not applicable to single buildings or groups in the same ownership, rural areas with a built component,

urban parks or active places of worship eligible under the joint scheme with English Heritage.

For leaflet, further information and to request inclusion on the "Lottery Update" or other publications mailing list contact: Information and Publications Team, Heritage Lottery Fund, 7 Holbein Place, London SW1W 8NR, Telephone: 0171 591 6041, Fax: 0171 591 6271

## *2 Draft Strategic Plan*

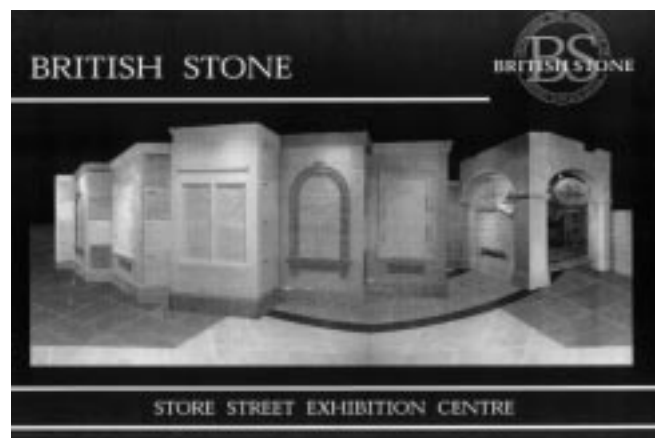
The HLF recently released its draft strategic plan for comment. It is topical and focused on education and access for all. HLF's share of Lottery funds is predicted to be £280 million in 98/99 falling to £218 million by 2001/02. This is further subdivided between various initiatives and spending on historic buildings and townscapes is expected to fall from £86 to £53million.

## *3 Other Lottery Funds*

The New Opportunities Fund (NOF) has been established and will derive 16.65% of Lottery funds initially rising to 33% in 2001 following the winding up of the Millennium Fund. Current programmes indicated for the NOF are Cancer Care, Green Spaces and Sustainable Communities, Access to Lifelong Learning.

## **SCOTTISH CONSERVATION CHARTER**

Historic Scotland have issued a draft Scottish Conservation Charter for comment. To obtain a copy please contact TCRE Division/Scottish Conservation Bureau, Historic Scotland, Longmore House, Salisbury Place, Edinburgh EH9 1SH. Tel: 0131 668 8668, Fax: 0131 668 8669.



## **BUILDING STONES OF GREAT BRITAIN**

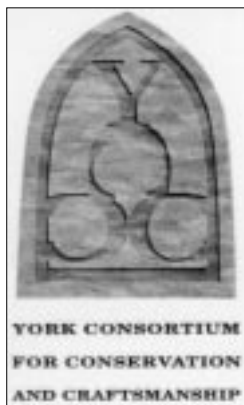
A new CD-ROM from British Stone illustrates the granites, limestones, sandstones and slates of Great Britain available. Well illustrated, in full colour with, information on independent test and specification data from the BRE, it is a useful reference for anyone involved with the use of stone. The illustrations complement the permanent display



of stones available for view at the Building Centre in London. The CD is suitable for use on Apple Mac or PC with Windows 3.1 or 95 computers. It is available free from British Stone: Kent House, 77 Crompton Road, Wolverhampton, WV3 9QH, Tel: 01902 426008, Website: <http://www.british-stone.com>

### **EUCLID INTERNATIONAL**

EUCLID international have been appointed by the Department of Culture Media & Sport and the European Commission (EC) as the official UK Cultural Contact point for 1999. This covers the programmes operated by Directorate General X of the EC including Kaleidoscope, Raphael, and Ariane. They publish application guides for each of the grant programmes and issue a useful Newsletter "Eureka" on other matters of European interest. For further information contact EUCLID, 1st Floor 46-48 Mount Pleasant, Liverpool L3 5SD, Tel: 0151 709 2564, Web site: [www.euclid.co.uk](http://www.euclid.co.uk)



### **YORK CONSORTIUM FOR CONSERVATION AND CRAFTSMANSHIP**

Established for just over a year this consortium aims to promote the conservation of material remains of the past in the City of York and its surrounding region. With a membership of 30 individuals and 24 organisations its immediate priorities are to prepare a brochure listing member's skills for promotional

purposes, the creation of a charitable foundation to promote the charitable aims of the Group, a Training Initiative and a programme of seminars, exhibitions and lectures. We wish this exciting initiative well and will keep you up to date with future developments.

### **CENTRE FOR ALTERNATIVE TECHNOLOGY**

Many of you may already be aware of this centre for all matters sustainable in Wales but for those who are not it runs mainly practical based courses in the areas of renewable energy and sustainable building. We will provide more detailed information in the next issue but in the meantime if you require further information they may be contacted: The Centre for Alternative Technology, Machynlleth, Powys, SY20 9AZ, Tel: 01654 703743, Fax: 01654 702782. Web site: <http://www.cat.org.uk>

### **EUROPA NOSTRA AWARD**

Chastleton House at Chastleton near Moreton-in-Marsh won one of only 6 prestigious Medals in the Europa Nostra awards. It was presented for the meticulous conservation of the fabric, furnishings and gardens of the Jacobean country house acquired on behalf of the nation to prevent the public sale and dispersal of its historic contents.

### **ARCHITECTURAL HERITAGE FUND (AHF)**

The AHF has reduced the interest rate on all new loans to 4% to reflect the fall in bank rate and difficulties facing Building Preservation Trusts. This is the first change of rate in the 23 year history of the AHF. In addition Project Administration Grants have been increased to £4000 from 1st April, Refundable Loan Preparation Grants continue at the present levels and the AHF will once again bear 100% of its own legal costs when contracting new loans and releasing them.



### **ALBERT MEMORIAL RESTORED**

First declared unsafe in 1983 when a piece of the cornice fell to the ground, it was covered with Europe's largest freestanding scaffold for eight years from 1990. The scaffolding finally came down in 1998 after thorough £11.2 million restoration directed by English Heritage over four years.

### **IMAGES OF ENGLAND**

The National Monuments Record in conjunction with the Royal Photographic Society (RPS) has been successful in securing a £3.09 million grant from the Heritage Lottery Fund to establish one of the world's largest, free, on-line picture libraries by the year 2002. Images of England, subject of an earlier article in this Newsletter during its pilot phase, aims to create a "point in time" photographic record of England's heritage listed sites. Volunteer photographers from the RPS will comb the country to capture 360,000 images. For more information telephone 01793 414779 or Web site: [www.imagesofengland.org.uk](http://www.imagesofengland.org.uk)





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## COTAC INTERNATIONAL CONFERENCE

### June 1998, Swindon

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The 1998 Conference was held in the historic former Swindon Town Hall, originally the "New Swindon Local Board Offices". It was designed by Brighton Binyon of Ipswich as 'the public offices building' for the New Town. Built between 1890-91 of red brick with stone string courses and a slate roof, it has 2 storey attics in 9 bays with gables over the end 2 bays. Now a library and community arts centre it has a splendid modern dance studio with raked seating in which the conference was held.



*Audience at the COTAC 1998 International Conference*

Nick Fenwick – Swindon Borough Council began proceedings, welcoming delegates on behalf of the Council. Commenting on the Town's history he noted that in 1841 its population was only 2,500 and that its expansion was initially caused by the coming of the railways. The choice of Swindon by Isambard Kingdom Brunel as the site of the Great Western Railway Engineering Works led to 10,000 being employed by 1892 growing to a peak of 14,500 in 1924. With the Works came an ambitious project for housing and an institution for the workers, and by 1911 the town had expanded to 60,000. Despite the decline in the railways the town continued to grow and in 1952 was part of the Government's Town Development Act to relieve congestion in London and the effects of industrial decline and unemployment in the region.

Sadly the railway works closed in 1986 and the industrial emphasis has now changed towards finance, electronics and information technology, and more recently the motor industry. But Swindon has not turned its back on its railway heritage. The former works and residential village are now listed, and have been adapted and used to meet the changing needs and develop the heritage of the town.

Tom Hassall – Chief Executive of The Royal Commission on the Historical Monuments of England (RCHME) said how pleased he was to be associated with COTAC and Swindon Borough Council in running this event and that he was delighted to welcome such a wide audience from so many different fields.

He described The Commission's work as dividing between survey and identification of what is historically important, both in archaeology and architectural history, increasingly emphasising the industrial past. On the other hand the record keeping role is carried out in the world class archive created partly from the conversion of the former General Offices of the Great Western Railways Swindon Works.

He noted the common interest between COTAC's concern with training and the Royal Commission's aim to try to transfer the skills of surveying, data base and archive management to the outside world.

Humphrey Welfare – RCHME's Director of Survey spoke about recording buildings for Conservation. He first noted that recording should be the means to understanding and thus being well informed for conservation action whether for the owner or for the planning and enforcement controls of the local authority.

This need for understanding underpins the current emphasis on the preparation of Conservation Plans for historic buildings that state the significance of the buildings and their immediate surroundings; how they are vulnerable to change and what policies of maintenance, repair, management or re-use need to be adopted to safeguard them in the future.

The need for such plans is one of the stimuli for recording and analysis by The Royal Commission and the parallel Royal Commissions in Scotland and Wales. These surveys are done at different levels of detail the general categories of which are as follows:

Firstly, recording in the face of rapid change. This is done in advance of substantial alteration or demolition of listed buildings, sometimes entailing straightforward photographic recording but on occasions a more detailed investigation involving an analytical metrical survey before a building is lost altogether.

Related to this but in a separate category regarding action is the small percentage of our most significant buildings – listed I and II\* for which a detailed understanding will be necessary before a suitable re-use can be identified and a plan for repairs drawn up.

Most economic and social change causes less dramatic effects and is to do with more familiar building types such as shops, hospitals, prisons and farmsteads. Each of these have been the focus of current or recent research and are covered by another strand of recording activity which is recording to inform management, to provide the basis and context for more specific conservation advice on individual problems.

In addition, research and recording is required into classes of building that may not be particularly threatened and which have been neglected in research, in order to better understand what may be worth preserving. This is recording to inform conservation strategies. A rapid identification survey may be all that is required. These may sound simple but rapid surveys demand the highest level of skill and experience. Recent surveys of this kind have included textile mills in the SW of England and the multifarious buildings of the road transport industry: bus stations, shelters, car showrooms, garages and multi-storey car parks.

As a final contrast the interpretation of buildings for the general public must place emphasis on the clarity of pre-



*Castle Carey*

sentation. This is achieved by the increasing use of three-dimensional drawings and reconstruction, virtual reality, and the anticipation of the need for these may affect the recording strategy adopted.

The importance of the immediate surroundings of a building in providing complementary information, and of recording the processes that took place within buildings to inform the recording strategy were noted.

Finally Humphrey touched on a number of different survey techniques and noted that the level of detail chosen and the techniques used for the recording have to be appropriate to the requirement of the survey being carried out. However he emphasised that no matter what techniques and technologies may be available the finest links are provided by the human brain. The need to train in perception and in methodological approach is vital. There must be understanding of what has been recorded and thus how it may best be conserved.

**Geoffrey Hutton – Hutton & Rostron.** Geoffrey's firm recognised the importance of technical information handling and systems back in the 1960s before computers had really been developed in the terms that we understand today. The practice has a broad mix of skills and usually works once removed from direct design with professionals or building owners, interpreting buildings or electronic publishing. They use computers to capture information, interpret, describe, distribute and to administer it. The key is who administers and who controls the information and most people don't want to pay for the information. Hutton & Rostron have an interest from raw data to knowledge, data being facts while information is facts with processed with experience.

He noted the value of books – they offer random access, are optically received, low cost, expendable, recyclable, a write on medium which can be fully inventoried. But a book can be produced by computer which is where the difference comes. If you have book like a directory it consists of many different pieces of information. On computer the book the pages may be turned faster and it is possible to search more effectively providing the index and contents are good but take care of ambiguity of "information gone wrong".

So Hutton & Rostron tried to develop a system to give rapid access to information with the Alpha-Dido system and as a result became interested in the internal structure of information. This may be expressed in specifications, recorded and used to feed back problems and so on. They took an information world, a geography of information and needed to locate it in an infomatic way. In the system there is a control area in and out, a reference centre with control mechanisms, active and passive sides, the active made up of news, processing, calculation, advisory and expert systems and the passive of directories, digests, case studies, cost services, graphics, reference and indexes to other systems. It had to be able to cover everything required and to run on the humblest machine. In this information world the project locators use a grid for location and in this set up there is an "addressable data envelope" which has a huge  $1.6 \times 10^{28}$  potential labels.

The system has the sale process embedded, knows when someone visits, details of the visitor and what they have done. The accounts processing is done, how long you dwelt on the site recorded and modern market research techniques can work on the same information.

Also through on line monitoring of buildings using up to 74,000 sensors it is possible to see what is happening on a site when not present. Using Hutton & Rostron R2 unit and telephone line connection, it can report on as many sensors as are wanted. For economy it has been found advisable to value engineer installation as well as data collection. The data collected is not information, this is turned into information by human interpretation. The data comes to the laboratory on line from the electronic monitors and merges it into a single database.



*RCHME Headquarters*

**Nigel Clubb – Director of the National Monuments Record, RCHME.** Nigel picked up the theme where Humphrey Welfare left it, Humphrey was talking about survey activity. Survey creates archive, and archive has to be curated and made available. We are all subject to this tremendous information revolution as the millennium approaches.

The UK government's new Library and Information Commission's year 2020 vision statement proposes a digital library collection, co-ordinated nationally and internationally embracing the world's knowledge and creativity. The UK's heritage and intellectual property will be locally available and the Royal Commission through the NMR intends to play its part in achieving this.

The Commission's main activities are survey, a record of the past, developing the National Monuments Record and provision of public access. That is a cycle, more access, more use, leading to more research which builds up the body of information and records and Nigel made a plea for the importance of data standards.

Survey has been going on since the formation of the RCHME and it has also acquired other activities and functions including the National Buildings Record, the National Monuments Survey, Archaeology Division of the Ordnance Survey, the DOE library and more recently other historic records. The archive consists of 800,000 volumes of buildings and records, over 7 million photographs and 80,000 measured drawings. A mass of material textual in nature, it can be spatial and geographical to make air photographs.

The Commission has played an active role in the development of data standards, both for monuments and buildings, and also for the cataloguing and reference of collections. The MIDAS system is a manual data standard for monuments, a thesaurus of monument types and of building material. They are faced with the need to provide tools for five things: service, the monument and building as a place, the type of building, the date and the materials associated with it. The archive and record may be on paper or computer. Things happen to buildings, to archives, interventions, surveys so this model has evolved in 3 or 4 European countries. It is getting more complicated now and government is making quality important. There must



*User/providers of Heritage information*

be content and context of the archives and there is also the problem of interpretation.

Geographical Information Systems (GIS) are a special use of information technology that provides part of the mechanics for achieving this. There is a growing role in this country, partly lottery funded for voluntary thematic recording groups including the Defence of Britain project, monuments and sculpture, parks and gardens, churches and agricultural buildings.

NMR have entered a commercial partnership with Exegesis a system which allows observation and recording of what happens to a monument to create an archive and enable the interpretation and the concept of a monument or building. There are 360,000 entries on the computerised database EH/RCHME and DCMS and experiments are in progress to make this available on the Internet and for public access.

The Images of England project to provide a photograph of every building on the statutory list is a joint venture with the Royal Photographic Society who will take photographs on a voluntary basis. Run in three pilot areas initially it has secured lottery funding for one year to take it forward and it is hoped to get further lottery funds to complete. The aim is to make information as widely available and easily accessible as possible. Market research suggests that the largest group of users of the listed buildings and other information are the general public not professionals It is a large job, and the RCHME is doing more projects with the private sector, linking to Europe and local networks.

**John Houston – Centre for Heritage Buildings at the BRE,** spoke about the use of lasers for remote measurement and cleaning. He dealt first with laser measurement of structures, starting with the laser interferometer, which is used for the measurement of vibration displacement. This can be used over relatively long distances, up to about 250 metres, to measure the velocity of vibration of a structure, which indicates for example wind loading. The second type is a 3-D laser that tracks the movement of a number of targets and requires the placement of targets on the structure being measured in order to measure their displacement. Two other types mentioned but not described are the VHS laser system, which measures the displacement of high

velocity targets, and the tracking laser which measures the angle of displacement using two lasers to track the target.

Interferometry has been used at the Palace of Westminster on all the 584 pinnacles including the clock tower which houses Big Ben and is about 3.6m high, some 93m above ground, requiring a laser distance of 100m. There are 8,196 measurement points. The total survey took 8 days and identified 5 suspect pinnacles.



*Pinnacles on the House of Commons*

The 3-D laser was developed for measuring smaller deformations on larger structures and has a smaller operative range of 3-30m and can measure deflections of as little as 1mm. It has been used as part of a fire test on an 8-storey steel framed building built in one of the old air ship hangars at Cardington. The wall being monitored had a maximum displacement of 31mm during a fire that lasted for 100 minutes.

John showed slides of the equipment in use and the data gathered.

He then dealt with the use of lasers for the cleaning of buildings which was originally developed by the Americans using a fibulator through a hologram. John Asmos was the founder of this work.

He explained that Laser stands for Light Amplification by the Stimulated Emission of Radiation that can be produced in different wavelengths from ultra-violet, through the visible range to infra-red, and can be generated to produce an intensely pure beam of immense power.

The use of lasers for cleaning buildings is only about four years old, and different systems use different ways of delivering light to the surface being cleaned. For instance Laserblast uses fibre-optics whereas Linton and BM Industries use mirrors. At present these require a powerful electricity supply, e.g. the Laserblast requires 30 amps. Work is in hand to reduce this high requirement.

Lasers are most effectively used for cleaning fine encrustations having removed the loose dirt and the thickest layers of crust with air abrasive techniques.

John finished by giving some examples of laser cleaning. On the stones at Avebury it was found that the emulsion paint graffiti could be removed without taking off the lichens. The lichens being of special scientific interest are listed in their own right. This work was done by Clifton Conservation for the National Trust. The same ancient monuments laboratory has carried out the cleaning of the jewels and lead-work on the Albert Memorial.

At The House of Commons internal stone-carving has been cleaned and Victorian limewash removed. Historic Scotland have used the technique at their Garth conservation centre. The National Museums and Galleries on Merseyside has recently hosted the second Lacona Conference and a recently published book by Cooper promoting the Linton Laser is very informative. English Heritage's previous direct labour organisation now owned by SITA, a French company, have carried out a number of trials at Berry Pomeroy in Devon and at Rievaulx Abbey in north Yorkshire.

**Paul Bryan – Head of the Photogrammetry Unit and Survey Team Leader at English Heritage.** Paul spoke about the range of photographic based survey techniques and the rapidly developing application of the digital imaging within this type of survey. This has caused recording needs to be enhanced as well as providing new avenues for the visual image to be applied within surveys.

He touched on the work of EH as the government's principal advisor on heritage matters with a statutory function in relation to protected monuments, buildings, landscapes and historic areas in England. It provides funding for conservation work, advises the Heritage Lottery Fund, manages an historic estate of currently around 400 sites open to the public, carries out conservation projects, research and development, and develops standards.

Within all these activities, survey in its wide variety of forms is often required. These may include providing an archive, an anti-disaster measure, or simply for presenting and explaining purposes, as well as the more obvious recording and analysis required to assist with understanding a building.

With the application of modern large scale data capture techniques a new breed of specialist surveyor has evolved who understands both the recording technology and the fabric that's being recorded. This specialisation is getting us closer to objective recording of base data that can be



enhanced by others and used to turn data into more useful information.

The two principal photographic bases of the techniques for providing metric survey that Paul discussed are Photogrammetry – the art, science and technology of making measurements from photographs, and the less expensive, but arguably more appropriate technique when funds are limited, of Rectified Photography.

Photogrammetry relies on the acquisition of stereo photography to form a three-dimensional image, and its initial application was the production of topographic maps. But since the second world war it has been more widely applied, and in the 1970s with the more general availability of computers, a new era that is now known as analytical photogrammetry, and hence more close range applications began to flourish.

By simultaneously viewing two slightly different images a 3-D view can be generated which can be set up in a digital photogrammetric plotting machine and thus generate an accurate representation of the object being surveyed. The majority of photogrammetric data is now recorded and stored as 3-D, CAD based data which users can integrate with their own in-house CAD systems. It can thus be transferred between contractor and customer, who can manipulate it to suit their own needs providing an accurate 3-D based framework into which all other survey information – archaeological, architectural – can be inserted using standard digitising techniques.

The other photographic base type of recording Rectified Photography also originated in the field of aerial survey but has been developed to provide an effective and relatively cheap method for buildings and monuments. Being based on a single rather than a stereo image, it has limitations of scaling and accuracy. It can only be reliably used on elevations that are principally flat and the photographs need to be taken precisely parallel to either the elevation or surface being surveyed. The film and lens planes of the camera need to be aligned with both the assumed vertical and horizontal planes of the elevation. All these limitations, and the effects of length distortion have to be accepted or minimised both by selecting the best camera, lens and restricting the coverage to the central portion of the exposed image. Although it is currently only a two dimensional technique there are packages being developed that will allow the generation of 3-D survey data from a single image.

Sometimes Rectified Photography can prove more valuable than photogrammetry in terms of displaying all the detail available rather than just an interpretation by a photogrammetric operator. However if an accurate scaled product is required then the limitations mentioned above must be accepted.

Beyond these traditional methods Paul touched on the introduction of PC based photo-manipulation software such as Adobe Photoshop, Coreldraw and the dedicated photorectification packages such as Arkis an MSR package from Rolymetric in Germany which have removed the

requirement to take precisely square on photography for accuracy.

Other new products such as the Orthophotograph are also being investigated as alternative ways of representation. While appearing similar to a rectified photograph the true orthophotograph is generated from a fully controlled stereo-image, rather than a flat single image, and therefore has the potential to be corrected for scale in 3-D.

Lastly Paul spoke about appropriateness of survey techniques. While there is no substitute for professional advice, there are some basic guidelines. To provide accurate data on the larger monuments such as cathedrals there is probably no alternative to photogrammetry. Where the subject is basically flat or contains a lot of "soft" detail such as tiled pavements or the remnants of a mediaeval wall painting then the rectified photography approach is probably more applicable. Where space is too limited for economic photographic coverage, e.g. within roof spaces, theodolite, REDM survey and/or hand measurement would be appropriate. The overlap of possible techniques requires careful cost benefit consideration. A combination could be the most appropriate solution.

**Pat Schofield – Consultant with English Heritage**, Spoke about the Heritage Spatial Information System (HSIS). She pointed out that this system seeks to pull together and address a lot of the areas and issues covered by previous speakers. For example Humphrey Welfare's point that we don't want more raw data, rather to be able to analyse what we have better, and Nigel Clubb's of the importance of understanding the underlying structure.

Essentially HSIS is an attempt to overcome the past difficulties of using separate databases, collating mapped records from different disciplines and teams, keeping paper maps up to date etc., by providing a fully integrated service covering all heritage information.

Specifically there are a number of objectives. Firstly to replace paper mapping with digital. There is already some digital mapping being done by English Heritage and the Royal Commission, but this tends to be on specific data sets. HSIS is attempting to integrate disparate data, cur-

**The HSIS Vision**

- ◆ Overcome weaknesses of paper maps and disparate databases
- ◆ Fully integrated heritage information
- ◆ Definition:
  - Replace paper mapping with digital mapping.
  - Integrate currently separate data-sets.
  - Link data to images e.g photographs, plans etc.
  - Enable capture, display and analysis of heritage data *in context* with other geographic data.

English Heritage and RCHME 2009-199

HSIS

rently held on separate databases and because a lot of current information is held in photographic form or on CAD files, it will seek to link these images to data held as text. Finally the system will attempt to make the information held as readily accessible and capable of analysis as possible.

HSIS is a partnership between EH and RCHME under the oversight of the Department of Culture Media and Sports (DCMS) and the contract to produce it has been let under the Private Finance Initiative to IBM UK Ltd. who are an integral part of the partnership.

The Geographical Information System (GIS) selected for use is GENMAP. However the GIS software needs a support framework to make sure that new initiatives can be built in. The real benefit will come from building up the heritage information in different layers e.g. scheduled monuments, listed buildings, records of the historic landscapes, historic parks and gardens, the register of historic battlefields. These layers will include the "Monarch" RCHME database layer, World Heritage Sites and other data-sets currently created by EH and RCHME. These different layers will for the first time be capable of analysis in conjunction with a national set of conservation areas and digitally held administrative boundaries.

Now that the contract has been awarded, the next stage is a 35 week implementation phase during which the existing Computer Mapping System will be replaced by a mod-

ern GIS type. This is committed to open technology standards that will ensure we will be able to share information with external bodies and incorporate CAD files. IBM will be responsible for ensuring that the Ordnance Survey map base is kept in good shape and made available to those who need it, thus freeing EH and RCHME staff to pursue their specialist roles.

Pat then described some of the lessons learnt. She felt there may be a feeling that data standards are not so important as they used to be. However although much of the information is held in a structured form, if we want to be able to analyse it sensibly it is absolutely vital that the conventions for naming items and the attributes of data are adhered to. Also that the structure of the information and the relationships between entities and the way we want to navigate information are understood. The best technology in the world will be of no use if the data is entered carelessly, therefore we must take a consistent interest in the quality of information input.

The key benefits of HSIS will be at the individual professional level in EH and RCHME.

At the corporate level an ability to get a holistic view of the historic built environment will be of great value for conservation planning and policy making. For the public the benefit will be easier access to and understanding of the past.

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## REINVENT YOURSELF AND LEARN IN CHAOS

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**P**roject managers must embrace chaos if they are to survive in the current turbulent and unpredictable business environment.

This was Prof. Oren Harari's message in an interview for *Project Manager Today* with Mark Hughes after ABT Corporations' Project Leadership conference in Paris. Harari is Professor of Strategic Management and International Business at the University of San Francisco

Whatever made you or your organisation successful in the past, will not make you successful in the future. Organisations and individuals need to react quickly to change in a world where new technologies are flying intelligence to the far reaches of the globe: they are overthrowing centralisation, organisational pyramids and hierarchies. Harari's views don't so much come as a shock to the system as a reminder of uncomfortable truths which we ignore at our peril.

New technologies, such as the Internet, are enabling entirely new forms of competition. Did you know that a number of blue-chip companies, in 1995, independently came to the conclusion that 50% of their revenues in 2000 would come from products and services that had yet to be invented? In addition, Harari says that 'Worldwide competition will continue to compress profits on anything that is uniform, routine and standard'.

So how do you survive? An over concentration on strategic planning is not the solution. Harari says this 'is useless as you cannot predict the outcome of the chaos in the external marketplace.' Instead, organisations need to change constantly, a situation which he believes fundamentally challenges everyone's role within their company.

'Organisations need to change. We are the organisation, so our jobs need to change. Who is going to change our jobs? You must reinvent your job before someone else does, the alternative is that your position may become obsolete', believes Harari.

He says this is particularly true for project managers. The pressures from the new economic order are already apparent in flatter organisational structures with reduced hierarchies based along project lines. Although there is less inter-company promotion, sideways development can still lead to increased responsibility, power and subsequent rewards. The opportunities for project managers are immense as project work increasingly runs the business.

He is convinced that in order for project managers to capitalise on the current shift in the marketplace they must reinvent themselves: 'In a world where project work becomes the rule not the exception, we will see a new breed of manager and project leader.'

### *Survival Plan*

Project managers have to embrace the chaos of the global business environment and adapt their own positions to its changing and unpredictable nature. The alternative is extinction. You cannot be ordinary; routine project management is no longer sufficient. If you only implement orders your position will eventually become redundant. 'You can control your destiny', he says 'but you must expect the end of functional fiefdom, the death of the job description and a greater sharing of knowledge.'

The key is 'mastery' of as many functional skills as possible and an understanding of the "brain based economy", with its concentration on sharing of, and access to, knowledge. Only then will project managers be equipped with the skills necessary to survive their new role. 'A role which requires them to look at the whole organisation, not just their projects, and ask themselves: "How would we run the business?"'

Project managers must also create new jobs and opportunities. 'If you haven't specifically been told "no", assume that you have authority to go ahead. Don't wait for responsibility – grab it; intertwine your position – you are not a separate function. Don't wait for the company to give you training – seek it out on your own; eliminate routine and accept that this must all occur in a state of continual chaos – you cannot wait until "things have settled down".' In particular the new project manager must embrace continual learning.

### *The Challenge*

Prof. Harari's survival plan is unequivocal. But how can educationalists nurture the right attitudes and teach project managers the skills they need? He believes it's possible: 'You can introduce these ideas into an academic environment, although particular individuals will be better at adopting them than others, as with other more formal disciplines.' However, he acknowledges that many executives believe that business educators, like himself, are part of the problem rather than the solution.

'Traditionally, business courses are functionalised, limited and narrow in scope. Skills are cognitive and analytical instead of synthetic, i.e., combining different people and disciplines. In order for business educators to be part of the solution they need to encourage interdisciplinary teaching and focus on real business problems, not just functional activities such as marketing. There must be a more holistic approach with different disciplines combining to solve real business problems.' This is his challenge to the academic establishments on both sides of the Atlantic.

He claims, however, that this approach cannot be adopted until there is a radical overhaul of the existing

structures in academic institutions. He believes that, just as organisations and project managers must adapt to survive, educational establishments must also acknowledge the chaos in the outside world in order to deliver appropriate learning.

Change will not be achieved overnight: 'Unfortunately universities are the most anachronistic institutions that exist. Most haven't changed their teaching methods since medieval times. The structures are very hierarchical, a learned man pontificates and you write down his message.'

He believes that business educators need to implement his notion of knowledge mastery, 'Students should be able to draw on knowledge throughout the world in an environment created by their professors. A professor's worth must be judged in terms of his or her ability to collaborate and share knowledge with their colleagues and students using the latest technology. Academia has to reinvent itself. The alternative is irrelevant courses, producing graduates ill-equipped to deal with the demands of the marketplace.'

### *Resistance*

Although he is certain that institutions will have to change, Harari says that his challenge would not be well received at present: 'Many academics would be highly resistant to change. Tenure is a problem, universities are the only institutions where you automatically keep your job even if you are incompetent and out of date.' This resistance to change is not only confined to academia, 'Whenever you question tradition in universities or business, people get very uptight.'

So it's up to you. Very few of us could say that we do not already exist in a state of chaos. Project managers are already well used to the unpredictability and change inherent in multi-project life, so you are already in a stronger position than many of your competitors. But do you need to reinvent yourself? If the answer is yes, try now to seize the opportunities. As Prof. Harari says: 'In the current environment the cost of delays far exceeds the cost of mistakes.'

Oren Harari is a Professor, consultant and speaker on business issues. His current book is *Leapfrogging the Competition* published by County Press, Washington DC at US\$24.95. Other publications include: *Jumping the Curve: Innovation and Strategic Choice in an Age of Transition*. Prof. Harari was one of the keynote speakers at ABT Corporation's Project Leadership Conference in Paris last November.

Article reproduced from April '98 issue of *Project Manager Today*.

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# SITES AND MONUMENTS DATABASE: An integrated solution for recording the historic environment

*Kate Fernie, Royal Commission on the Historical Monuments for England*

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At first, Sites and Monuments Records may seem surprising places to find state-of-the-art integrated information systems set to revolutionise the management of the historic environment. Over the last twenty or so years, Local Authorities have struggled to find the resources from national and local sources to establish these records of the archaeological and built heritage.

Based on a system of index cards and paper record maps established by the Ordnance Survey Archaeology Division, Sites and Monuments Records (SMRs) have gradually developed into computerised indexes to extensive archive collections of maps, photographs and reports. Until recently, the paper record maps held the key to accessing the information held in an SMR.

This is now set to change with the development of an affordable new software package for SMRs by exeGesIS Spatial Data Management in partnership with the Royal Commission on the Historical Monuments for England (RCHME) and the Association of Local Government Archaeological Officers (ALGAO). The Sites and Monuments Database simplifies the work of heritage managers by integrating records of monuments and buildings with a Geographic Information System (GIS) and digital images.

The involvement of the ALGAO membership at all stages in the design and development of the Sites and Monuments Database has ensured that this is a genuinely user friendly system. Key information is visible at a glance and the forms incorporate many features that make the task of data input easier. Flexibility is a watchword, as the system accommodates existing data and individual working practices allowing users to move between records, the GIS and images with ease.

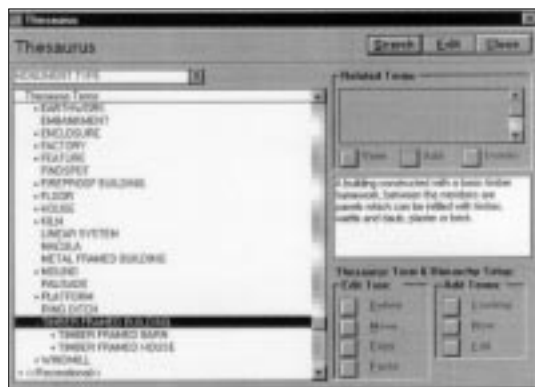
For heritage managers, one useful feature of the system is the ability to look at the area of a proposed development in the GIS and immediately see the distribution of monuments, buildings and previous investigative work. The

system allows rapid examination of the detailed monument and event records and assists professional decisions about the impact of development on the historic environment. Also built into the system are standard search forms that allow users to build up queries simply and to retrieve information in familiar ways, e.g. by name, grid co-ordinate or record number.

The RCHME has provided exeGesIS SDM with the National Heritage Reference Data Set, including the Thesaurus of Monument Types, and this is incorporated into the system. The big advantage of this is that it enables research. Using this system, for example, heritage managers can identify all medieval timber framed buildings with thatched roofs in their areas. The GIS capability can be used to compare the distribution of monuments of differing type, enabling for example a review of the use of different building materials within the study area, or a comparison of the distribution of settlement, industrial and religious sites at different periods within a region.

As the Sites and Monuments Database is based on national and international data standards for archaeological and architectural records, it enables the exchange of information between archaeologists and building conservation officers. Some of the authorities that have taken this software have used it to combine their SMR with their Listed Buildings Record and to consider buildings in their period landscape setting. So far, some twenty local authorities across the United Kingdom have taken the Sites and Monuments Database. These authorities will readily be able to interchange data and, as their number grows, the increasing consistency in heritage data will enable exploration of national themes. Perhaps we can allow ourselves a vision of a future in which it is easy to find all surviving examples of a particular monument type, e.g. 18th century tide mills, consider them in detail and assess their significance in the national context.

Further information about the Sites and Monuments Database is available from exeGesIS SDM, Great House Barn, New Street, Talgarth, Brecon, Powys, LD5 0AH. Tel: (01874) 711145



*Thesaurus of Monument Types. © RCHME Crown copyright*



*Avebury tithe barn. © RCHME Crown copyright*



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## ZIBBY GARNETT

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ZIBBY GARNETT was a countrywoman who used her knowledge of all the applied arts that make great houses shine to steer at least two of them into calmer water. Through the Nineties she was immersed in the conservation of decorative arts, first at the Lincoln College of Art and Design and later, after their merger, within De Montfort University.

She was a great self-improver who read for the pleasure of it but found the means to bring most of what she learned to good use. By the time she reached Lincoln she had learned her trade in the dismantling of one of the Dukeries (several ducal houses in a small area of Nottinghamshire) Thoresby, 84,000 square feet of “muscular Victorian eclecticism” by Anthony Salvin. In 1980 it had been passed to British Coal which preferred to be the owner of its problems rather than answerable to others for the subsidence their undermining was causing. By 1988 they wanted shot of it and exercised the right to move the family still in occupation, out of it.

Zibby Garnett was ready having finished a good, but less than half complete, catalogue of the contents and then put method into the selection of what should be kept for use in a new building and what should go for sale. She was, alone, the person prepared to know about each object, the part it played in the overall scheme of decoration and how it related to the remainder. She informed every decision that was later taken to preserve the core collection from several thousand objects.

She was fastidious enough to be offended by a bad fit within a decorative scheme or, equally, by bad planting. She baffled everyone at Thoresby by complaining of the tea roses planted on the terrace which were of obvious vigour and unprecedented display “They are tea roses only hybridised after 1945 and quite out of place in a parterre designed by Nesfield in 1868.” But she was never a bore or pedant. Because her purist tendency was the product of her enthusiasm and excitement in the subject she carried the audience with her. She left Thoresby before the roses had been replanted to join an English Heritage team that was bringing Brodsworth, near Doncaster, back to life after its period asleep. This meant applying the same skills and dis-

cretion to build up, to get the fabric cleaned and replaced, to see the spirit of the place emerge again. Lincoln was an obvious next step. There she made a temporary, freelance assignment into a permanent role. Although her work was chiefly administrative she was, at the least, unusual in having no higher qualifications at all. She had received an education and lifelong values, if few exams in her convent schooling at St Hilda’s, Whitby, while growing up in the NorthEast.

After coming on to the staff at Lincoln she led an HND course and later set up a new research department, the Centre for Conservation Studies. It was perhaps an obvious choice when De Montfort wanted to take the new school up in the world they should ask Garnett to create from nothing the International links and to set up the student exchanges that would prompt the cross-fertilisation arts education depends on. Through that she found friends in Europe and India and would, had she lived, no doubt have extended this range throughout the world.

She always treated new interests and tasks as a means to make new and proper friendships wherever she landed. This was not a planned career cut short by the cancer that hunted her for 12 years but a journey from one interesting place to another with plenty to get on with as she went. Outside her paid work she was taken up with causes centred on the arts and architecture, although her membership of the Diocesan Synod hardly fits that definition and, here also, in spite of her own modest assessment of her abilities others saw fit to push her into the lead. At home in Norwell, a small red-brick village north of Newark where she came in 1977 with her husband, David Garnett, they gave creative life to many of the interests and principles they shared. They showed how a proper knowledge of plants and their history can lead to an infinitely more stimulating effect than the ignorant motivated only by a sense of colour or immediate impression.

HUGH MATHESON

*Elizabeth Pamela Stock, arts administrator: born Newcastle 14 October 1944; married 1971 David Garnett died Norwell, Nottinghamshire 15 January 1999.*

THE INDEPENDENT 5 FEBRUARY 1999

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## MAJOR REPORT PUBLISHED ON TACKLING STEEL FRAME CORROSION

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The results of a three-year, £115,000 study into the problems of corroding steel frames of masonry-clad buildings and how to tackle them is now available on CD-ROM for £10.

The research was carried out by Taywood Engineering and Harrison Goldman Design Consultants and the report resulting from it was launched in London to an invited audience of 100 of those in whose hands the nation's built heritage rests.

The report is called *The Prevention and Repair of Corrosion in Masonry Clad, Steel Framed Buildings*\*. If you are involved in conservation you are likely to find it of great use to be familiar with this publication.

The presentation was preceded by an introduction by John Fidler, in charge of the buildings materials research programme of English Heritage, and John Stambollouian, from the DETR. Stambollouian said at any one time the DETR had some 600 projects running, although the reports resulting from them often got no further than the shelves of researchers. He wanted more of this work to reach the public domain and the Government was working to that end — like the publishing on CD-ROM of this report on steel frames.

Peter Gibbs and Rennie Chadwick, from Taywood Engineering, and Peter Harrison, from Harrison Goldman (also the junior vice-president of Stone Federation Great Britain), spoke about their research and the report.

The subject of corroding steel frames is important because most major buildings over four storeys high built since the beginning of the century (or shortly after in London) have steel frames. Although some were built, particularly in Manchester and Liverpool, from as early as the first half of the 19th century, the first was in 1810.

Until World War Two, the masonry around the frames was built tight up to the frame and any gaps filled with mortar. Clinker concrete was often used to infill, and clinker accelerates corrosion of steel.

Nor were expansion joints included. On a 70m frontage a rise of 10°C in temperature can result in 10mm expansion. If that has not been allowed for in the design, something will give, which can allow water to penetrate.

Inadequate maintenance over the years, leading to the failure of lead flashing and asphalt coverings can, again, allow water to penetrate to the steel frame. When the frame rusts it expands and with the masonry right around the

steel, the result is often cracking, displacement or spalling of the masonry.

Corrosion typically occurs in phases. Up to 30 years there is little. Between 30 and 60 years corrosion sets in and after 60 years it starts to become apparent as cracks on the outside of a building.

The solution, apart from demolition, has tended to involve the removal of the masonry, blasting the rust away back to the steel, painting the frame and replacing the facade, leaving a cavity around the frame.

In the report, however, alternatives are explored, particularly cathodic protection (CP), which involves wiring the frame up to a low powered electricity supply to reverse the processes of decay. Taywood have said this can halve the price of stripping and treating.

The latest project to use CP is St Andrew's House, Edinburgh, which was at one time being considered as the home of the new Scottish Parliament, which it was later decided to house in a new building. It is the largest use of CP to date. Taywood say it speaks volumes that the Government is prepared to adopt the technologies developed under these DETR projects.

Tape sealants are also considered interesting and these have been installed in a building in Scotland as a long-term trial and could be the subject of more research and a future report. Likewise, corrosion inhibitors, new products the long term effects of which are still to be determined.

Publishing the report on CD-ROM has the advantage of being inexpensive, but the way it has been programmed means it cannot be printed out, which is a drawback because it would be handy to take parts of it on to site as a check list and to give to operatives.

It is a problem which needs resolving. It makes sense to put a price on the CD to offset the cost of production and restrict circulation to those who actually want it. But how many sales would be lost by being able to print it out? Perhaps about the same number as will be lost to those who will not buy it because of this limitation.

\* *The Prevention and Repair of Corrosion in Masonry Clad, Steel Framed Buildings* is available on CD-ROM only for £10 from Michelle Connolly, Taywood Engineering Ltd. Tel: 0181 575 4161. Fax: 0181 575 4044. E-mail: michelle.connolly@taywood.co.uk

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## HISTORIC BUILDING SITE MANAGERS' EUROPEAN TRAINING

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*A project carried out with the support of the Commission of the European Communities within the framework of the Leonardo Da Vinci Programme and with the support of the Council of Europe.*

### AIM

In response to the growing market for the conservation of historic buildings in Europe, the European Foundation for Heritage Skills (FEMP) harnessed the skills of six countries France, Ireland, Italy, Portugal, Spain and UK to create a training programme for historic building site managers by international exchange.

### PROGRAMME

This programme involved a total of seven weeks training. The initial two weeks, early in the year, were at the Venice European Centre for the Trades and Professions of the Conservation of Architectural Heritage on the island of San Servolo in the Venice lagoon. This was followed by return to their employers and then a four-week placement on site in one of the other countries during the Spring/Summer. Candidates then returned to their employers before a final evaluation week back in Venice towards the year end. Consequently the site managers were able to share knowledge, acquire new skills and benefit their companies with European expertise.

The Course Programme covered the following areas of study for which a certificate was awarded on completion:

- Heritage conservation concepts and techniques.
- The scientific basis of conservation and restoration.
- Traditional techniques and materials.
- Conservation techniques and materials.
- Site management (budgets and materials).
- Quality control.
- Health and safety on the building site.
- Planning and co-ordinating the work.
- Drafting reports.

### TARGET MARKET

This training was aimed at site managers involved in the restoration, modernisation, or renovation of historic buildings. The intention was that trainees should have basic technical knowledge and some management experience.

### MANAGEMENT COMMITTEE

The programme was run by a Management Committee set up by FEMP. This comprised representatives from the six participating countries and its tasks were to:

- Design the programme
- Organise its implementation
- Define the selection criteria for candidates
- Co-ordinate the various components of the project.
- Assess, report on and promote the initiative.

### THE EUROPEAN FOUNDATION FOR HERITAGE SKILLS

The European Foundation for Heritage skills (FEMP) is a private, not-for-profit organisation established in 1996 at the initiative of the Council of Europe.

Located in Strasbourg, it is managed by a governing board with representatives from the Council of Europe, UNESCO, and the European Parliament, as well as representatives from cultural heritage and business circles. It operates under the patronage of Vaclav Havel, President of the Czech Republic, Vigdis Finnbogadottir, former president of Iceland, and HRH the Prince of Wales.

Its purpose is to "foster progress in cultural heritage conservation skills and their transmission". To do this it has set itself a threefold task:

- 1 In-service training
- 2 Information and networking
- 3 Awareness raising for the general public

The Foundation seeks to promote co-operation between existing training centres and organisations.

### THE EXCHANGES

This is a Pilot Project. The UK sent three trainees, Peter Dunwell from A.E.Houghton and Son in York who trained at Lisbon Castle and environs, Gavin Douglas from Historic Scotland who trained at Sagrada Familia cathedral in Barcelona, and William Napier from the Scottish Lime Centre who trained at various sites in Florence and Turin.

The two trainees who came to UK were Joao Castico from Portugal and Giovanni Gazzotti from Italy. Their first week in the UK was spent at the Tower of London Environs Scheme, and included visits to English Heritages Laboratories in Savile Row and Painting Studios in Regent's Park, as well as the Albert Memorial, with two mornings



at Lambeth College.

The second and third weeks were in Scotland experiencing the restoration of Stirling Castle by Historic Scotland, courses at the Scottish Lime Centre, and study tours of conservation projects in Glasgow and Edinburgh.

Their fourth week consisted of two days at York with A.E. Houghton and Sons, followed by two days with Linford Bridgeman in Lichfield, including training at the Stoneleigh Abbey project. They attended the COTAC International Conference in conjunction with the RCHME on Recording at Swindon to round off their stay before returning home.

## EVALUATION AND THE WAY AHEAD

All the trainees returned to Venice at the beginning of October in order to evaluate the success of the pilot arrangements, with the final Project Management Meeting held in Obidos, Portugal, later in October. The aim has been to record experience of the Pilot Programme and agree how the scheme could best be run in future years. Interest indicates future support for the project subject to sufficient funding being available. It is likely to be necessary for substantial financial support to be available to encourage building firms to release their employees and provide the necessary element of financial support themselves.

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## “WHERE HAVE ALL THE TRAINEES GONE?” asks David Linford

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David Linford, chairman of the Lichfield, Staffordshire, building and conservation Linford Group has vacancies for 20 trainees across his operations — and he cannot fill them.

The jobs offer youngsters between the ages of 16 and 23 the opportunity to learn a range of skills from trades to technical management. The vacancies have been advertised in the local press and at Job Centres, but nobody has applied to fill them.

‘I must stress that these are real, long-term jobs on offer with very competitive salaries. And as one of the largest and most respected of local employers we are offering the prospect of entry onto a formal, committed training programme leading to an exciting and fulfilling career.’

David Linford says this is not a new problem, either, but one he has been facing for the past four years at least.

He says the group has an order book worth £8million and, he believes, a rosy future —at least, it has if he can find the people to keep the skills alive.

“Linford’s success is based on our highly skilled, dedicated and experienced workforce, many of whom have been with the company all their working lives,” he says. “We desperately need new, young blood to come in to help us maintain our tradition of building excellence into the next century. I must ask once again: where have all the trainees gone?”



*David Linford, chairman of the building and conservation group which bears his name, with his wife Barbara at the group’s headquarters in Lichfield. Linfords have 20 jobs to fill and cannot find trainees to take them.*



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# AN OVERVIEW OF BUILDING CRAFTS TRAINING STRUCTURES IN THE UNITED KINGDOM

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## INTRODUCTION

This article is based on a presentation by John Taylor, Director of the Building Crafts College, given at the COTAC Standing Conference on 26 November 1998. It summarises the Scottish and National Vocational Qualification (S/NVQ or VQ) system and explores a number of the related packages which could be developed to provide useful frameworks for conservation training. Reference is made to funding arrangements, New Deal and Government plans for the University for Industry (Ufi) which, despite its name, is mainly concerned with vocational training. It also deals with the relationship between the Further and Higher Education sectors and considers the issue of progression from craft to technical and professional qualifications.

## UK VOCATIONAL AND EDUCATIONAL TRAINING

In England, the Qualifications and Curriculum Authority (QCA) brings together in one organisation the work of two former bodies: the Schools Curriculum and Assessment Authority and the National Council for Vocational Qualifications (NCVQ). QCA is thus responsible for: the curriculum for children under 5, the National Curriculum, National Tests for 7, 11 and 14 year olds, GCSEs, A-levels, GNVQ, NVQ and higher-level vocational qualifications. The Scottish Qualification Authority has a similar role in respect of examinations and vocational training in Scotland.

## THE S/NVQ SYSTEM

S/NVQ are work-related qualifications, based on standards set by national bodies, mainly National Training Organisations (NTOs), approved by the Secretary of State for Education and Employment, representing each industry sector or occupational group. These standards specify essential knowledge and understanding as well as the practical skills necessary to demonstrate the required competence. Awarding Bodies are accredited by QCA to award specific qualifications and to carry out 'external verification' of approved training centres to ensure that assessment is being carried out in accordance with the national standards.

VQs are made up of Units and Elements. Units are self-standing and may be accredited separately. Each Unit is, in turn, made up of a number of Elements. This modular approach provides great flexibility, enabling candidates progress at their own best speed. When all the required units have been achieved, the whole qualification is awarded.

The VQ system provides for 5 levels of qualification:

- Level 1: Foundation skills.
- Level 2: Operative or semi-skilled.
- Level 3: Craft and skilled operative (The vocational equivalent of A-level).
- Level 4: Technical and junior management (the vocational equivalent of a first degree).
- Level 5: Chartered, professional and senior management (post-graduate level).

## CONSTRUCTION VQS

The Construction Industry Training Board (CITB) acts, inter alia, as the NTO for the traditional building crafts, while CITB and the City and Guilds of London Institute (CGLI) form the Joint Awarding Body for Construction Industry VQs at levels 1 to 3. EDEXCEL with CIOB and the ICE are the awarding authority for the higher Levels (4 & 5) conservation VQs in partnership with COTAC. The list of Accredited VQs includes many specialist qualifications to meet specific needs of current practice. In relation to the traditional building crafts, basic skills are recognised at Level 1 in Wood, Trowel, and Decorative Occupations. Level 2 provides evidence of sufficient competence to work on site as part of a team in the specified craft discipline, for example: Carpentry and Joinery or Stonemasonry, Fibrous Plastering, Wall and Floor Tiling, Painting and Decorating, Glazing. Progression from Level 2 to Level 3 can be achieved in most qualifications. Also, Level 3 provides some hybrid qualifications, for example Building Maintenance, and, for most qualifications, it provides a number of optional units from which selections are made to suit specialist applications, not least qualifications in building conservation.

There are no specialist conservation VQs below Level 3, although some optional modules are being developed for maintenance. Conservation VQs at level 3 have been developed by COTAC in: Wood Occupations, Painting and Decorating, Stonemasonry, Bricklaying and Plastering. A Diploma-level qualification at Level 4 has been developed in Construction Site Management (Conservation) and related work is continuing to gain accreditation for VQs for conservation officers and professionals at Levels 4/5.

## KEY SKILLS

Proficiency in Key Skills is a central feature of Government educational policy and mandatory standards are being introduced at all levels, common to all qualifications. Key Skills include communication, numeracy, literacy, information technology, ability to work with others and the need

to understand the processes of learning. Competence in these skills is considered to be implicit in the current range of construction VQs (Brown Schemes), but separate assessment is likely to become mandatory when these schemes are revised. Key Skills are already mandatory in the GNVQ, National Traineeship and Modern Apprenticeship schemes, discussed below.

### **MODERN APPRENTICESHIPS**

The Modern Apprenticeship scheme was introduced in 1993, based on the achievement of a VQ at Level 3, together with appropriate key skills. Training programmes are structured in three stages:

- The Foundation Stage provides a general introduction to the construction industry and health and safety requirements, including procedures for accidents and emergencies, safe use of equipment, protective clothing, risk assessment and both personal and corporate responsibilities. Basic skills, knowledge and understanding are developed to VQ Level 1.
- The Intermediate stage builds on the successful completion of the foundation stage. It includes: the interpretation of drawings, specifications and instructions; knowledge of materials; estimating and an understanding of current legislation, as well as the competencies necessary to achieve Level 2 in the chosen occupation.
- The Final Stage covers the additional skills, knowledge and understanding needed to carry out the complex activities of planning, organisation, monitoring, control and evaluation of operational activities and the maintenance of a safe work environment within given areas of responsibility

The Modern Apprenticeship scheme caters for additional optional modules, over and above minimum requirements. The framework also allows modules to be selected from other S/NVQ or GNVQ, allowing employers greater flexibility than the 'core' S/NVQ alone, to tailor training programmes to their particular needs. This would, for example, allow units from different qualifications to be drawn together to provide the basic understanding of several craft occupations alongside a higher level of attainment in a 'core' craft, reflecting the multi-disciplinary nature of many conservation projects.

Modern Apprenticeships are designed for trainees in employment. There are a number of entry routes, but a general requirement is that training should be completed by the age of 25. Typically, in England, Training and Enterprise Council (TEC) funding is available in the order of £300 per quarter for the duration of the training programme (up to three years), with a bonus of £800 for the achievement of VQ Level 3. Employers are expected to contribute by paying wages and by providing relevant site experience.

### **GNVQ IN CONSTRUCTION AND THE BUILT ENVIRONMENT**

General National Vocational Qualifications (GNVQ) provide a broader, more academic, base of understanding of vocational areas than NVQ, where underpinning knowledge is related directly to the achievement of practical competence in the workplace environment. They may be delivered in schools or as part of further education at Foundation, Intermediate and Advanced levels.

The Foundation GNVQ in Construction and the Built Environment is an excellent package, providing a comprehensive grounding for those seeking a career in the Construction Industry. The scope is illustrated by the following outline of units:

- **Unit 1.** The use and protection of land; conservation of building materials; conservation of energy in domestic buildings
- **Unit 2.** Exploring the use, location and design of buildings
- **Unit 3.** The structure of, and jobs and employment in, the Construction Industry
- **Unit 4.** Contributing to Team Activity (similar units exist in S/NVQ)
- **Unit 5.** Investigate construction craft practices, including basic tools and undertaking a craft project
- **Unit 6.** Drawing equipment and working drawings
- **Unit 7.** Health and Safety
- **Unit 8.** Investigate the growth and development of urban areas in the UK
- **Unit 9.** The science of buildings

### **NATIONAL TRAINEESHIP**

The National Traineeship Framework for the Construction Industry encompasses national criteria laid down by the Department for Education and Employment. The minimum entry age is 16 and, as with Modern Apprenticeships, training should be completed before the trainee is 25. The mandatory outcomes are:

- S/NVQ Level 2 in a construction occupation
- Foundation GNVQ in Construction and the Built Environment
- Certification in Key Skills at Level 1.
- Specified Occupational Requirements
- Employer Options

The last two outputs provide scope for specialist conservation packages. Overall, however, the framework repre-

sents a considerable training commitment, and take up has been limited. As far as is known, no conservation traineeship has yet been adopted.

TEC on-programme funding (typically £390 per quarter) is generally available for the duration of approved Training Plans which fall within the scope of the framework. Successful completion attracts an achievement grant (typically £400).

### **CONSTRUCTION APPRENTICESHIP SCHEME**

The Construction Apprenticeship Scheme has many of the characteristics of the Modern Apprenticeship, with employers 'in scope' (essentially firms working on site in building construction in the UK) for the purposes of the statutory training levy, being funded by CITB. Apprentices over the age of 25 are eligible for funding under this scheme, although the rates of grant available are reduced.

### **IMPLICATIONS FOR CONSERVATION**

Despite early criticism and acknowledged limitations, the VQ system imposes a comprehensive specification for the standards of practical competence and underpinning knowledge required by industry. The range at the lower levels is however limited and the practical projects are specific e.g. doors and windows, but the experience of the Building Crafts College is that these tasks have to be completed to a very high standard. For example, the marking out, cutting, shaping and assembling of components to produce full-size frames, using hand tools, to tolerances of +/-1mm requires considerable care and discipline. It is the lack of breadth, rather than the standards demanded of the specified competencies, which causes most concern. However, both the Modern Apprenticeships and National Traineeship frameworks provide a way of factoring in the more specialist skills necessary in a particular occupational area, in our case conservation. These frameworks should provide a useful vehicle for conservation training, building on the rather limited core competencies of appropriate 'base' VQs.

### **NEW DEAL FOR CONSTRUCTION**

The New Deal for 18-24 Year Olds aims to help young people who have been unemployed and claiming Job Seekers Allowance for 6 months, to find work and improve their prospects in remaining in sustained employment. The scheme has recently been extended to include those over the age of 25 who have been unemployed for 2 years or more. New Deal provides three stages of help:

- Gateway Provision, which is an initial counselling and guidance service and prepares entrants for the main element of the programme.
- One of four Options, namely: a subsidised job with an employer; full-time education or training; or work on the Environment Task Force or with the voluntary sector. Each option includes an element of education or training.

- Follow-through, to ensure that New Deal entrants are helped throughout their participation
- on one of the options above, to find sustained employment.

A guidance document, *New Deal in Construction*, has been prepared by the Construction Confederation and CITB. It sets out a New Deal programme for the construction industry which can be delivered at a local level throughout the UK. It is based on the employment option, with a minimum training requirement of one full day per week or its equivalent during a six-month period of subsidy. During this period, New Deal will pay employers £60 per week towards wage costs, and £750 towards training costs. The main problem with this scheme is that six months is woefully inadequate for training new entrants to S/NVQ Level 2, and candidates have to progress on to other schemes to continue with their training. The CITB grant scheme provides one possible source for those employed with firms "in-scope". Other options include the Modern Apprenticeship and National Traineeship routes. Not surprisingly, perhaps, one of the main concerns has been the quality and motivation of candidates coming forward under New Deal.

### **RELATIONSHIP BETWEEN FURTHER AND HIGHER EDUCATION**

The master builders of the Middle Ages understood the structural elements of buildings and their mechanical behaviour, they appreciated the principles of good design and they had the practical skills to undertake or direct the work in hand. In modern terms, the medieval master builder embodied the skills of the architect, the engineer and the craftsman.

Generally, these traditions have been lost and probably only continue to exist within the conservation community, where a sound knowledge of practical skills must be combined with an understanding of both the structural history of a building and the design factors which contribute to its particular character.

Very significant barriers still exist between further and higher education. In part, these are a legacy of early industrialisation, when craft skills became associated with demeaning manual tasks in appalling conditions. In the post-industrial age, there is a need to encourage young people once more to take a pride in creating things with their own hands.

Craft training is also at a disadvantage due to current funding arrangements. Degree students will have course fees paid (except for £1,000 which is now means tested), and receive Local Authority maintenance loans/grants, whereas Government funding for Further Education meets only a fraction of the costs of most craft training and students are normally left with no support for living expenses. It is hardly surprising that many Further Education Colleges prefer to concentrate on courses which can be delivered in a classroom rather than expensive

workshops and that many potential craft training students will be lured by softer-option degrees and the best grants.

Some Further Education colleges are now collaborating with universities to offer hybrid degrees, encouraged by the more favourable funding regime in Higher Education. This raises interesting questions about the distinction between the two sectors. For example, where is the line to be drawn between, say, a furniture design degree and a furniture-making craft course? Even the Government now uses the term 'vocationally orientated degrees'. Furthermore, some degrees are now offered on a modular basis, removing the time pressures associated with a traditional university education. On the other hand, the underpinning knowledge requirements of, for example, stonemasonry at S/NVQ Level 3 include the geology and sources of stone, complex geometry, the classical orders of architecture and a strong grounding in site management and general construction practice, which go a long way towards the contents of some diploma and degree courses.

In principle, greater interaction between Further and Higher Education is to be encouraged, but artificial barriers to a logical progression from craft to professional levels must be removed. The author strongly believes that higher levels of craft skill must go hand in hand with appropriate academic training to re-establish the traditions of the master craftsman. There is potential here for the expansion of availability and development of the COTAC/City & Guilds Master Crafts course.

### **UNIVERSITY FOR INDUSTRY**

The University for Industry (Ufi) is a Government initiative to bring new learning opportunities to the home, the work place and the community. It will be launched in the year 2000. It is aimed essentially at adult learners, and it will use new technology and a network of learning centres, to promote learning ranging from basic skills of literacy and numeracy to specialised technical skills and business management. The Government envisages that it will play a key role in improving the nation's competitiveness by raising peoples' skill levels and employability.

A draft corporate plan has been produced. The key elements of Ufi will be:

- The promotion and marketing of learning, particularly through the use of broadcasting and IT;
- An enhanced Learning Direct, national learning help-line;
- Ufi learning materials, either commissioned by Ufi itself, or existing ones which Ufi will endorse;
- A network of franchised learning centres operated by partnerships throughout the country;
- Learning support, delivered through learning centres and on-line;

- Regional services to support learning centres, and to undertake strategic analysis of skill needs with local partners;
- Evaluation, quality assurance, research and development;
- An effective delivery system based on information and communication technologies.

Clearly, this is an initiative of enormous significance, particularly in specialist sectors such as conservation, where local demand in any one area might not be sufficient to create the critical mass needed for existing training providers to offer the training required. At the very least, it will be a powerful medium for promoting conservation training opportunities, and there should be a role for COTAC in facilitating development of appropriate learning materials and a number of other areas.

### **CITY & GUILDS SENIOR AWARDS SCHEMES**

In discussion on higher level skills, it should be remembered that City & Guilds offer Senior Awards at four levels:

- Licentiate (LCGI), comparable to under graduate study
- Graduateship (CGGI), comparable to a First degree
- Membership (MCGI), comparable to a Masters degree
- Fellowship (FCGI), which recognises the highest level of professional achievement

The qualifications recognise the professional experience and skills of senior staff. These Awards fall within the scope of the Higher Education sector. In passing, it is also interesting to note that funding for Higher National Certificates and Higher National Diplomas recently passed from the Further to the Higher Education sectors.

### **CONCLUSION**

In conclusion, despite their limitations, S/NVQs do provide sound building blocks within the construction industry, and a number of existing schemes already provide opportunities for building on these skills to create packages to meet the requirements of the conservation sector. Furthermore, new opportunities are now appearing on the horizon. It is hoped that COTAC will be in a position to undertake further development work, in concert with appropriate partners, on both the qualifications and the supporting materials required to meet the needs of the sector. The most urgent requirement is to provide clear progression routes for individuals seeking a career in conservation.

*John Taylor, January 1999*



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## A WOODLAND CHALLENGE

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As part of our continuing quest to expand and develop new and interesting courses at South Birmingham College that would both appeal to industry and captivate students imagination and enthusiasm, we had been looking into the current trend for timber framed buildings and in particular traditional timber framed construction. However, one of the major drawbacks was that of the material costs involved in running such a course. We already had quite a lot of the specialist tools and a timber frame building on site, as well as specially trained staff, thanks to a previous course in Restoration. However, large sections of green oak do not come cheap and with a limited budget things were looking very bleak and that so easily could have been the end, and would have been, but for a chance meeting with Graham Hunt and Terry Merchant of the Forest of Mercia.

In 1990 the Forests for Community programme was launched by the Countryside Commission with the Forest of Mercia being established as one of three leading forests, with a further nine to follow. These community forests were intended to cover large areas on the edges of towns and cities where major environmental improvements will create well wooded landscapes for wildlife, work, recreation and education.

Their main objectives are:

- Protection of existing landscape of historical, archaeological or visual interest.
- Regeneration of the countryside around towns and cities.
- Establishment of a supply of local timber and the development of timber based industries.
- Provision of new opportunities for educational use.

However, they have come up against one or two problems, not least of which was a skill shortage and they were looking for both students and volunteers to help them along the way, which all fitted in very nicely with what we were trying to set up at South Birmingham College.

Three years ago, we were just coming to the end of a very successful two year course sponsored by a Euroform bid to develop and run a course for Restoration of Timber Framed Buildings and I was looking for a supply of willow to enable us to train the students in wattling techniques. Terry was extremely helpful and within twelve months we had formed a strong partnership.

In return for green oak and wattles to run our courses

from their managed woodland, we were asked to design and build a shelter in their exhibition wood alongside the Stafford County showground.

The idea was simple. He said 'to construct a 4½m × 4m × 3m high timber framed building from green oak, cut from the woodland, and erected during the two days of the show. This would help develop an awareness for woodland management within the local farming community, as there was a sizeable amount of woodland grant approvals not being taken up. And in the long term educate the landowners in the viability of a commercial return from their woodland.'

Never one to turn down a challenge we set about working out how it could be done, although at times it felt more like 'challenge Anneka' than a college project.

It proved to be extremely successful and by the end of the show in May 1996 there was the shell of the timber framed building residing in Berry Wood next to the showground. Although not all the construction was purely traditional it had the feel of rustic charm that we had set out to provide and we had managed to raise it in two days. In fact, several of the timbers had been still growing in the wood at the start of the show and had been felled, drawn up through the wood by heavy horse, to the woodmizer portable sawmill for conversion into sawn sections. At this point we took over and fashioned them to fit into the building.

The following year we returned to find the building just as we had left it and proceeded to infill the panels using traditional wattling techniques. We also took templates of two openings to allow us to make a couple of arched windows back at the college, using some more oak from the woodland, and these were fitted the following year.

It was about this time I became aware of the interest we were starting to generate and the potential that projects like this could have for generating future courses. I found myself talking to many landowners, farmers and members of the general public, many of whom said "Oh yes, I watched you put the building up last year and I thought I would come back down and see how you were getting on. Could you build me one of those? I have a wood on my land. Would you be interested in building something like this for me?"

By this time the project seemed to have gathered a momentum all of its own, although not yet generating money in its own right. We had at last covered all our costs thanks largely to the sponsorship of the Forest of Mercia and had received free timber to be used back at the college.

Then in January of this year while at a meeting with the Forest of Mercia to discuss this year's show, I was asked to tender for the design and building of an entrance-way-cum-lych gate to highlight the approach to Berry Wood. The

main part of the entrance was to be constructed and put into place prior to the show, while the roof structure was added after, thus allowing the public to view the construction work underway.

The timber was to be green oak and again it was to be in keeping with the building already under construction on the woodland site. Phase 1 was for the design and construction of one lych gate with the possibility of a further five to follow in Phase 2, these later five being used to advertise the entrances to the New Forest. The idea was that they would be situated at key traffic islands around the woodland.

By this time we had quite a few students wanting to get involved with the project, many of whom having already worked with me on the woodland shelter proving themselves more than capable. I even had three students who had left the previous year take time off work to come and work with us at the show.

We started off by creating a framing ground in the workshop, then marked out and cut all the components. From there we dry assembled the main structure to make sure everything fitted OK and dismantled it ready for transportation to site.

Once on site we re-assembled the frames using wooden pegs to hold the joints and ensure a tight fit. We then raised

each frame into place and positioned it into pre-dug holes in the ground. The cross rails were then added and all draw bore pegs driven home. That left the roof structure, which was to be part constructed beforehand in our workshop and finished off during the show, then lifted into place later by forklift for health and safety reasons.

This year's show was again very well received, as was the new entrance to Berry Wood. The work also continued on the shelter with an oak shingled roof being put on, so we will no longer have to rely on the weather to keep us dry next year.

Although our initial challenge has been successfully accomplished, I feel this is only the start. Indeed, we are already looking at a series of notice boards with shingled roofs to be installed at points of interest at key woodland points and the possibility of much bigger things to come, but as they say, "that's another story".

In conclusion I would like to express my thanks and appreciation for all the support and help received while working on this project from the Forest of Mercia and in particular Graham Hunt and Alison Fisher and to all the students who have worked on the project without whom none of it would have been possible.

*Simon Winder, Lecturer at South Birmingham College*



Above left: *Work under way on the timber frame shelter roof during the show.* Above right: *Framework of lych gate under construction in workshop.* Below left: *Framework being lifted into position prior to show.* Below right: *Completed lych gate;*



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## Construction Industry Board PROGRESS WITH IMPLEMENTATION IN 1998

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At last summer's meeting of the Board the member bodies confirmed that they wish to see the CIB continue for at least another three years to implement the 1994 Latham Report. There will be a major emphasis on measuring improvement. Sir John Egan briefed the Board on his report which offers a major boost to the campaign to improve the industry's performance.

The Productivity and Cost Improvement panel has produced free fact sheets on a number of themes include partnering, benchmarking, value management, standardisation and preassembly. These have been extremely well received and a series of workshops on these topics were run in conjunction with the Construction Productivity Network.

The Good Practice Panel focussed on the active dissemination and implementation of the CIB's six Codes of Practice and guides for effective project procurement. It has produced a summary, Good Practice is Good Business, and supported a series of CPD videos. It continues to promote case studies of good practice and track its uptake. Early surveys suggest many more organisations are using these Codes of Practice than was realised.

CRISP, the Construction Research and Innovation Strategy Panel has produced a database of known research projects, which the CIB has been very pleased to endorse as an excellent single source of information on the latest ideas coming through. It can be found on the web at <http://www.crisp.rdg.ac.uk>.

The Construction Minister had announced details of the Construction Best Practice Programme to improve the communication of general management best practice and the CIB's approved outputs in particular. CIB oversee the programme along with the DETR and information is available from the Programme Management Unit at BRE on 01923 664232.

Work to improve the image of the industry continues with the second National Construction Week 19-25 April 1999 and the other initiative, the Considerate Constructors Scheme, now has over 450 sites registered. Since the launch, 25 outstanding sites have received National Awards, resulting in considerable trade and regional press coverage for the winning companies.

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## INTEGRATED PEST MANAGEMENT AND THE DEATHWATCH BEETLE

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EC funded research on deathwatch beetles initiated on behalf of English Heritage in 1995 has now been completed by Ridout Associates. This project was undertaken because current remedial treatments of wood boring beetles are costly, destructive and rarely successful. It was therefore desirable that alternative methods of beetle control should be developed.



The project was entirely successful, and results were published in various scientific journals and at a number of seminars and conferences during 1998. The more important findings include:

- Deathwatch beetle populations remain viable at timber moisture contents of 10-12% although the number of emerging adults is likely to be small. Beetle numbers increase rapidly if prolonged water penetration occurs.
- Spiders are the most important predators, and will help to control the population if the number of

emerging beetles is low.

- Beetle activity can be identified by a range of techniques including the use of surface applied sensitive microphones to detect characteristic feeding sounds.
- Both sexes of beetle fly readily if the air temperature exceeds about 17°C, and both sexes are attracted to light.

Results from the research have been incorporated into an Integrated Pest Management protocol which:

- Evaluates the problem.
- Depletes the beetle population by allowing natural predation and removal by trapping during the adult dispersal stage.
- Restricts conventional chemical treatments to timbers where the beetle density is high.

For further information please contact Ridout Associates telephone 01562 885135 Fax: 01562 885312

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## CAPITA TO RUN CONSTRUCTIONLINE

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Construction Minister Nick Raynsford MP has awarded the partnership contract to run Constructionline to Capita Business Services.

Constructionline, an on line register of approved construction contractors and consultants, is currently used primarily by central Government. Capita have been given a seven year concession to run the service and plan to invest over £750,000. The aim is to triple the number of firms on the register and increase the number of clients fivefold over the first three years.

The initial investment includes upgrading the service's IT infrastructure and setting up a national telephone helpline (0870 240 0152) to answer queries and help firms and clients to use the system.

Constructionline currently serves over 200 public sector clients, ranging from the Ministry of defence to local authorities and housing associations and contains information on around 11,000 contractors and consultants quali-

fied to work on public sector projects. The service will continue to be free of charge to public sector bodies.

Firms which have been successfully assessed according to their financial, managerial and technical abilities can register on the database for fees which begin at £70. The service will operate from three locations, London, Manchester and Edinburgh.

Nick Raynsford said, "Constructionline is an important element in our drive to improve quality and efficiency in construction. There is enormous potential for a rapid expansion of the system throughout the public sector and among large private sector users. We will be exploring the scope for the system to become involved in taking forward the Combating Cowboy Builders initiative."

Capita Chairman Rod Aldridge said, "The service addresses some of the cost and quality issues raised by Sir John Egan in his recent report." *Rod Aldridge, Chairman & Chief Executive of The Capita Group Plc*

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## WINSTON CHURCHILL FELLOWSHIPS

### Funded travel opportunities for study projects

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Each year the Winston Churchill Memorial Trust offers opportunities for British citizens to travel overseas to undertake study projects related to their trade, profession or particular interest. In doing so they widen their experience, make contacts abroad and bring back knowledge to this country to the benefit of their work and the community.

Readers may remember reports in previous issues by Keith Sanders, a Winston Churchill Memorial Trust

Fellow, of his travels and research in Europe and the USA looking at Building Conservation Training.

These Travelling Fellowships are available to applicants of any age and from all walks of life, irrespective of academic or professional qualifications. To apply for information contact the Trust on Tel: 0171 584 9315. Fax 0171 581 0410 or e-mail: office@wcmt.org.uk. They also have a website: www.wcmt.org.uk.

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## Director Appointed to Building Regulations Advisory Committee (BRAC)

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Congratulations to Richard Davies, COTAC's Director, on his appointment following a selection interview to the Building Regulations Advisory Committee for two years.

The invitation was made by the Secretary of State at the

DETR in recognition of Richard's ability to bring to the Committee his considerable expertise in, and experience of, historic buildings; together with his practical knowledge of problems of conflict between the Building Regulations and the re-use of historic buildings.



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## NEW NAME FOR MUSEUMS TRAINING INSTITUTE

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The Museum Training Institute formerly the Industry Lead Body and Industry Training Organisation for the Museums and Galleries heritage sector was appointed as one of the new National Training Organisations last year. Its mission is “to enable museums, galleries and heritage organisations to achieve their objectives by developing the full potential of their governing bodies, staff and those who work for them.” MTI receives core funding from the Museums and Galleries Commission.

On the 17 November it changed its name to the Cultural Heritage National Training Organisation (CHNTO). It identifies its core functions as: to identify the skills needed in the sector and how they can be achieved, to take a lead in developing qualifications based on national occupation

standards and to ensure that employers views on training and education are heard.

The new awarding body with responsibility for museums, galleries and the heritage are Qualifications for Industry Ltd. For more information on this contact Peter Lassey at CHNTO.

Cultural Heritage NTO, 1st Floor, Glyde House,  
Glydegate, Bradford BD5 0UP.

Tel: 01274 391087.

Fax: 01274 394890.

Email: [kathryn@chnto.co.uk](mailto:kathryn@chnto.co.uk)

Web site: <http://www.chnto.co.uk>

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## CITY OF SCULPTURE

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DE MONTFORT UNIVERSITY is backing the people of Lincoln in a bid to establish the historic city as an oasis of excellence in sculpture.

The City of Sculpture initiative, which will boost the county's culture, education and economy, aims to develop a collection of public sculpture for display throughout the city.

Partners in the venture, which will provide a showcase for talented creators from schoolchildren to international artists, say Lincoln is the ideal architectural and historic backdrop for displaying sculpture.

Support from artists, organisations and people of the city has been overwhelming and plans are now underway to run competitions, seek sponsorship and select suitable sites for sculpture.

Anyone interested in supporting the venture should contact:

Prof. Vincent Shacklock, Faculty of Art and Design,  
Chad Varah House, Wordsworth Street,  
Lincoln LN1 3BP

Telephone: 01522 512912



*Sculpture at Lincoln's Usher Gallery by sculptor and De Montfort University senior research fellow Prof. Michael Sandle.*

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## A RETURN TO CRAFT SKILLS?

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In the most advanced industrial countries such as Germany and Italy it is no longer conceivable to promote industrial development to the detriment of crafts. The co-existence of these two production methods and ways of thinking is now largely recognised as an absolute necessity for a modern economy.

On the architectural level, however, strong ideologically-motivated resistance to this coexistence persists. Balanced development requires a profound change in mentality and the abandonment of outdated creeds that remain anchored in an industrial and collectivist teleology. It must be remembered that in the genesis of artistic and architectural modernism the founding myths were established in a complete break with the past. The rest was pronounced prehistory: 'There is no going back.' Some events and some works were elevated to the rank of paradigms for a new humanity, for a necessarily all-industrial modernity. Anything that does not go along with the mainstream of this sectarian vision of modernity is disqualified as historic and superseded.

The break with, and historicisation of, the past become a means of auto-definition, of domination and exclusion. Industrial ideology establishes itself as the sole productive and creative force of modernity. Consequently, traditional architecture's language, its system of representation and, indeed, its very technology are excluded from the industrial future and hence from training. The immense capital of know-how held by building-related craft-trades — truly a monument of practical intelligence with an enormous potential for production, invention and education — is disparaged as a pre-industrial and historical phenomenon and, as such, banned from technical training and economic practice and retained merely as a subject for archaeology and arts and crafts history courses. Artisan know-how is reduced to a simple level of theoretical and historical knowledge. Thus we are faced not only with a scandalous reduction in the productive capacities of society as a whole but also with the radical impoverishment of basic democratic choices relating to vocations and trades and, more generally, with the means of human self-expression. As a consequence, the artisan practices necessary for traditional

architecture have been accorded the status of marginal or amateurish activities based primarily on self-training.

The immense demand for traditional architecture which manifests itself in all free-markets and democracies must, for the time being, be satisfied with products of inferior quality or with ersatz and superficial copies. The development of this market in terms of both quantity and quality has been seriously curbed, if not totally blocked, by a general lack of adequate training and teaching facilities and of normal institutional representation.

It is now obvious everywhere that even the most energetic and imaginative industrialisation policies will not result in full employment. In any case, full employment is not and cannot be an objective of industrialisation — it is simply not within its aims and competence.

The 'all-industrial' economy is now faced with problems of structural unemployment which it is unable to avoid or resolve. We therefore have to accept that a large part of building in the future will not be implemented by further industrialisation but, of necessity, by traditional artisan methods of production. This represents a considerable source of employment and, above all, self-employment. Today the most serious obstacle to the development of modern craftsmanship in the building industry is not found among users nor in the nature of crafts and trades, but in the ideological — even theological — deviations of modernist mysticism and sectarianism.

Industrial ideology and metaphysical collectivism have devastated artisan methods and instruments of training and teaching and, indeed, artisan culture as a whole: it is this out-dated ideology that slows down and often prevents its partial reconstruction.

Industrial education methods produce specialised, dependent labourers, thinkers and consciences. How else can we explain the fact that manual work has become an unaffordable rarity in those very OECD countries that count more than 60 million unemployed hands?

Leon Krier's latest book *Architecture — Choice or Fate*, in which this essay appears, is published by Andreas Papadakis Publisher (208pp, £24.95).

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## SPECIAL INSURANCE FOR LISTED BUILDINGS

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A new insurance scheme, designed for the owners of listed residential properties, is available from Commercial Union. Recently launched, it is run in association with the property insurance specialist Simply Listed and provides cover for listed buildings and their contents.

One customer with a Grade II listed half-timbered Tudor house dating back to 1490, took out his policy after seeing an advertisement. He commented that he found out about the insurance after seeing it in a brochure, which arrived through the post. Initially regarding it as junk mail, the word 'listed' caught his eye so he investigated further.

Previously insured with Frizzell, he found that the new policy gave the same cover but for just under £100 less. It provided £250,000 worth of cover for an annual premium of £317 including insurance premium tax.

There are 366,500 listed buildings in England and Wales, 60% of which are in residential use. Household cover

starts at £25,000 and includes accidental damage cover.

In the event of an emergency, policyholders can call Europ Assistance's 24-hour emergency telephone line. Europ Assistance can then provide access to Specialist contractors who are trained to deal with emergencies relating to listed buildings.

If the fabric of the building is damaged, the client's property will be restored to its previous condition and a wide range of professional advisers with knowledge of the conservation regulations applied to listed buildings are on hand to ensure that repairs are correct.

Ian Frater, marketing manager for Commercial Union, said: "The scheme is designed to protect both listed buildings and their owners' contents. As the name suggests, Simply Listed deals only with insurance for listed buildings, so clients will receive a service tailored to meet their needs."

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## DETR - Output & Employment in Construction

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Type of Output	Value	Year's Growth	Fourth ¼ Growth compared to Third ¼ '98	Fourth ¼ Growth compared to Fourth ¼ '97
Total volume of work during year	£62 billion	+2%	0%	-1%
Total volume of new work			+1%	+2.5%
Total volume of repair & maintenance			0%	-1%
New private housing			-7%	-14%
New public housing work			-27%	-35%
New infrastructure			+13%	+1%
New private industrial sector			+2%	+2%
New private commercial			-2%	+18%
New public non-housing excluding infrastructure			+10%	+16%
Public housing, repair & maintenance			-1%	-6%
Private housing repair & maintenance			-4%	-7%
Public non-housing repair & maintenance			+5%	+3%
Private non-housing repair & maintenance			+2%	-2%
Total employees in employment Jan '99			-1%	0%
Total employment including self employed Jan '99			-1.5%	-3.5%

**Notes:** The private commercial sector accounted for a large share of the 2% growth in overall construction output. The results maintain the high level of activity following the sharp peak in the first quarter of '98. Figures for individual sectors can be affected by exceptionally large contracts.

*For further information telephone: 0171 890 3020, Public Enquiries Unit: 0171 890 3000  
DETR Internet address: <http://www.nds.coi.gov.uk/coi/coipress.nsf>*

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## ENGLISH HERITAGE AND RCHME TO MERGE

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English Heritage and the Royal Commission on Historical Monuments for England have been operationally amalgamated with effect from the 1st April 1999, following a proposal by Chris Smith, the Secretary of State for Culture, Media and Sport in July 1998. The plan is based on proposals contained in the DCMS's Comprehensive Spending Review last year. English Heritage Commissioners have been appointed Commissioners of the RCHME and the full legal merger will be completed when parliamentary time has been made available.

The merged body will continue to be known as English Heritage, with RCHME and the National Monuments Record forming a key part of the English Heritage Conservation Group under Director of Conservation Oliver Pearcey. The National Monuments Records will continue to be based in Swindon and will retain its distinctive identity. RCHME survey teams in York, Cambridge and London will be co-located with EH's new regional offices over time.

The plans have proceeded with the support of both organisations, and the reason for the merger is one of long-term strategy and planning, not short-term cash savings. Says RCHME: "The Royal Commission welcomes this proposal as an opportunity to create a more effective, efficient and forceful lead body for the historic environment. Its success will depend on the protection of the RCHME's critical mass of academic and professional skill, its unique archival resources and the established identity of the National Monuments Record within the new enlarged organisation."

The enhanced organisation will focus on four key aims: the protection of the historic environment; increased physical and intellectual access to its riches; improved understanding and enjoyment of the built heritage; and the effective management of resources.

These changes will not affect Scotland and Wales where the Royal Commissions will remain separate from Cadw and Historic Scotland, respectively.

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## COTAC S/NVQs QUESTIONED

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In November 1998, a series of questions were presented to a meeting of the COTAC Standing Conference by Roger France on behalf of the Course Directors Forum. The following is an attempt at answering some, but not all of the issues raised. Of the questions that are not covered here, some relate to decisions that have yet to be taken. Others, such as those raised by T Hyland's 1994 article on Competence Education and S/NVQs, are matters for the specialists in general education theory (not an area of competence claimed by the author).

### *What are the origins of the Qualifications and the Qualification Curriculum Authority (QCA)?*

The concept of National Vocational Qualifications was initiated by the government in the mid 1980s and the National Council for Vocational Qualifications (NCVQ) was set up in 1986. Since then, in 1997, NCVQ has been merged with the Schools and Curriculum Assessment Authority (SCAA) to form QCA. Now, the main aim of QCA is to oversee the development and implementation of a coherent national framework of qualifications working closely with National Training Organisations (NTOs), employers, teachers, lecturers and trainers who deliver education and training programmes.

As a regulatory body, QCA is charged by Government with the responsibility of maintaining standards in educa-

tion and training. This will necessitate interaction with NTOs, awarding bodies, schools, colleges, training and assessment centres, and other national representative bodies, regulatory and quality inspection organisations such as OFSTED.(1)

### *In what way do the aims and intentions of the QCA differ from those of: 1. institutions of higher education; 2. the chartered environmental professions?*

There should not be any conflict of interest. It is accepted that, in the development of S/NVQs, the starting point has been the employers' requirements. Initially, the suspicion was that the aim was to by-pass educators and trainers. Experience has shown this not to be the case.

Chartered construction professional institutes are fully involved and have been working on higher level S/NVQs from their conception. For higher-level conservation qualifications, there has been consultation with the RIBA, RTPI and RICS throughout the process of development and support has been expressed from each for the results now proposed.

### *In what ways is the QCA a preferred body for the identification of standards of excellence, when other certifying bodies exist?*

From the terms of reference (quoted above) it will be noted



that distinctions are made between “developing a coherent national framework”, awarding qualifications and acting as an assessment centre.

The overview is taken by QCA who accredit and monitor all NVQs, as does the Scottish Qualifications Authority (SQA) for SVQs north of the border.

Awarding Bodies, such as the City and Guilds Institute, and Edexcel (formed from the former BTEC and London University examining board), organise the implementation and delivery of NVQs. This includes the responsibility for “centre approval” and quality assurance. In all cases, the awarding bodies rely upon partnership with the relevant professional or technical bodies that represent the different sectors. Thus for higher-level conservation qualifications, COTAC is a partner with Edexcel, acting as the forum for discussion between interested professional and other institutions.

The colleges, as approved centres, recruit and manage the candidates. They retain the responsibility for guiding the students in their development of knowledge, understanding and competence.

***What are the problems identified by COTAC that the provision of S/NVQs at the higher levels are designed to solve?***

Perhaps the single most important objective has been to ensure conservation takes its proper place in the framework that now exists for the Construction Industry as whole. A re-orientation was needed, breaking away from the industry's preoccupation with new build. In the new climate of concern for sustainability, a shift is needed that encompasses care of the existing built environment. Our view has been that Conservation provides a well-tested set of ethical standards and professional skills for the effective maintenance and adaptation of the existing built infrastructure.

Thus we see the S/NVQ system not so much the solution to a problem as an opportunity. It is the vehicle, supported by Government, for a coherent set of national standards. This allows the conservation discipline to be seen in its proper perspective by relating it to a coherent definition of the overall role of the construction industry.

A common set of national standards has been produced by practitioners supported by the professional institutions. These standards act as benchmarks, defining the services that can be expected by the clients/ consumers.

***Why are S/NVQ certifications necessary when registers of professional competence are being developed by the RICS and the RIBA, as have criteria for membership of the new Institute for Historic Building Conservation?***

The S/NVQs are intended to support such initiatives, not duplicate them. This has certainly been the attitude of the IHBC and of those responsible for running the registers for architects and surveyors. The fact that it has been possible to relate the skills of each discipline to the others has been particularly useful in clarification of roles. Hopefully,

S/NVQs will help to increase the numbers of applicants for specialist registration.

***Why are S/NVQ certifications necessary when specialist postgraduate courses exist?***

These are two different things. The S/NVQ represents a national standard while the courses are a means of reaching it. The postgraduate courses may contribute to the attainment of an S/NVQ or be aimed directly at it, providing the necessary underpinning knowledge and relating it to live practical experience. The colleges retain their independence and may choose their own targets.

***What is a separate set of certifications going to provide?***

The purpose is to provide benchmarks that the statutory authorities, professional institutions and the general public can examine and, if necessary, over time modify. S/NVQs are subject to regular review.

***How do the proposals for conservation S/NVQs relate to the other QCA frameworks (i.e. nursery schools up to “A” level)?***

These are all part of the policy of successive Governments to create a clear pathway for progression through education and training. The spectrum includes life-long learning, CPD, and mid-career specialisation such as the Conservation S/NVQs.

***What is the response to criticism by the RIBA and the RTPI that high level NVQs are not appropriate for high level professional activities?***

The initial caution of some sectors has not been sustained. The whole S/NVQ system has been modified as a result of experience. Now, the RIBA, along with others, is actively engaged. There are developments in both the graduate and post-graduate fields. The RTPI has given its blessing to the Conservation Consultancy (Level 5) S/NVQ.

***How do the proposals for conservation S/NVQs at levels 4 and 5 (for consultants, control and site management) relate to other levels in each subject?***

For site management, Conservation is a direct development of an existing, non-specialist S/NVQ.

For Conservation Control, the IHBC chose to develop its standards for the “new” profession using the S/NVQ methodology and, as such, was able to relate them to the other high level standards that were being developed at the same time.

Conservation Consultancy followed the precedent created by the Construction Project Management level 5 S/NVQ, as an option for post-graduate, mid career specialisation, open to a range of professional disciplines. Candidates may be architects, engineers, landscape architects, town planners or surveyors, all of whom will already possess the core skills of their specialism, at a level accepted by their respective institutes for chartered membership.

***Which organisations will undertake validation or review and with what frequency? What is the cost and who pays?***

There are all the layers of control that one would expect. QCA is the final authority, providing the initial approval for any NVQ (with the SQA doing the same north of the border for SVQs) and calling in each qualification for review at the end of its accreditation period, usually at 3 or 5 year intervals. This is all at no direct cost to those concerned.

The Strategic Forum of Construction NTOs will now be responsible for oversight of the industry as whole, although at present the situation in respect to the UK Construction Industry is in flux. Currently, players include the Construction Industry Training Board (CITB) and the Construction Industry Council (CIC). The former organisation is funded by a levy on the industry and the latter by member subscriptions, although their costs do not bear directly on the training providers or the candidates.

An awarding body submits the S/NVQs for national approval and is responsible for operations in relation to each qualification subsequently. For the awards that we are here concerned with, the two bodies are Edexcel and SQA. They invite colleges and other training centres to operate the S/NVQs, within a prescribed framework in order to establish consistency. There is an external validation process, requiring visits to colleges at a minimum of once a year. The awarding body is also responsible for recording the candidate registration and for issuing the final award. This is a charge to the candidate, and until final approval is received from QCA it cannot be confirmed but is likely to be in the order of just below £100.

COTAC's agreement with Edexcel and SQA is based on the principle that the monitoring process (external validation) will be carried out by appropriately qualified representatives of the respective professions. The aim will be to ensure that there is an effective feedback mechanism and also, as a result of regular reports, a process of constant review. The cost of the latter exercise will be born by the institutes and COTAC.

Colleges are responsible for monitoring the progress of each candidate, once they have registered, and for the consistency of their own internal systems. The costs of this process are born by the colleges and passed on to the candidates in the usual manner.

***If holders of S/NVQ 5 in Conservation Consultancy are regarded as being equivalent of professional status, will continuing professional development be required?***

Yes, as with all disciplines. In fact, it is possible that candidates will choose to pick off one unit at a time as the means of attaining the overall qualification. This must be one of the best methods for organising one's personal CPD agenda.

***With respect to the assessment of applicants for an S/NVQ, what processes are involved and how are they organised?***

This is entirely a matter for the college to decide.

Presumably each will wish to continue the traditions that they have evolved as a result of experience. The outputs required by the VQ system relate to evidence of experience or a simulation of direct experience as well as an understanding of the underlying knowledge that this demands; very like the RIBA Part 3 examination.

***How much will the attainment of a S/NVQ cost individual applicants and their sponsors?***

This will be a combination of charges, the fee charged by Edexcel of about £100 noted above plus the fee charged by the training establishment, yet to be confirmed.

***Why is full documentation not yet available?***

The process of development that led to a submission to QCA and SQA was the result of protracted consultation. However, until finally approved the product remains the property of the sponsors; that is CISC.

Once approved, responsibility for dissemination passes to the Awarding Body.

***How much has been spent by COTAC since 1992 on developing NVQ proposals?***

The development process for the S/NVQs was funded in part by Government through the DFEE and heavily subsidised in terms of time and effort by organisations and individuals. In overall terms CISC has calculated that this subsidy has been in the ratio of £7 to each £1 provided by Government. To this must be added the cost of associated overheads that have been provided by various institutions, including English Heritage, Historic Scotland and, as hosts of the trial reviews, CIOB.

***What are the outcomes of the trials held in December 1996?***

As previously reported, the results overall were considered to be satisfactory. There were criticisms of the content and of the accessibility of the language. These resulted in further review and modification prior to formal submission to CISC. The S/NVQs were approved by CISC in September 1997, subject to the finalisation of the Awarding Body arrangements. This final stage, including the submission to QCA and SQA, has taken much longer than was expected.

***What are the predictions of income and expenditure for COTAC should the current proposals be implemented?***

COTAC will be proposing representatives to act as external verifiers. This will be done through consultation with the Members of the Standing Conference. As such there will be the basis for feedback and review. It is unlikely that there will be any financial benefit for COTAC from this process. It is hoped that practitioners and lecturers as well as professional institutions, client representatives and the statutory authorities will be actively involved in this process, again, at no cost.

*Richard Davies*

(1) *Qualifications and Curriculum Authority. An Introduction (COMI/97/892)*

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## ENGLISH HERITAGE CHAIRMAN LAUNCHES BUILDING CONSERVATION MASTERCLASSES AT WEST DEAN COLLEGE

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On 29 September, Sir Jocelyn Stevens, Chairman of English Heritage, officially opened the Old Dairy Workshop at West Dean College and launched the new programme of Building Conservation Masterclasses for 1999. The College runs the courses in partnership with English Heritage and the adjacent Weald & Downland Open Air Museum, where some of the teaching takes place.

Speaking at the launch, Sir Jocelyn said: "There is a growing crisis in the shortage of craft skills in the United Kingdom's construction industry. There are not enough high quality training opportunities for professional, technical and crafts people in the practical hands-on aspects of building conservation. This is indeed ironic when the building maintenance and repair sectors are currently enjoying a boom period on the back of the lottery programmes and until very recently a relatively buoyant economy. Employers are not investing in vocational training. Consequently, specialist traditional building skills are at an all time low and furthermore, post-vocational and continuing education generally lack many of the specialist competencies to deliver high quality practical training in the field. It is for this reason that English Heritage was especially pleased when The Edward James Foundation and West Dean College agreed to take on the role developed by English Heritage some years ago at Fort Brockhurst, of providing high quality practical training in the repair and conservation of historic buildings. What is more, the type and standard of courses on offer here at West Dean are unique and deserve to appeal to a very wide body of inter-

ests in this country and abroad."

The 1999 programme, following on a very successful inaugural season, includes the most popular courses and expands the range of subjects to cover the conservation and repair of traditional materials such as plasters and renders, historic brickwork, and flint buildings. There is also a specialist course on cleaning masonry. The Old Dairy Workshop is now fully operational with a large workshop housing the 'ruinette'. This is a purpose-built masonry structure exhibiting many of the faults of historic buildings on which students can practise repair techniques using traditional materials. A lecture room and a laboratory in the same building enable the courses to offer a unique combination of practical work and lectures including opportunities for close study and analysis of material. Facilities for the teaching of timber and some other courses are available at the Weald & Downland Open Air Museum. Residential accommodation is provided in the College, or adjacent buildings.

New courses are already being planned for the year 2000. These will develop the existing courses and extend the range of subjects covered to provide much needed training in practical building conservation.

Further information is available from: West Dean College, West Dean, Chichester, P018 0QZ. Tel: 01243 811301 Fax: 01243 811343 E-mail: westdean@pavilion.co.uk. Web: <http://www.westdean.org.uk>.



*Colin Burns working on the Ruinette in The Old Dairy*

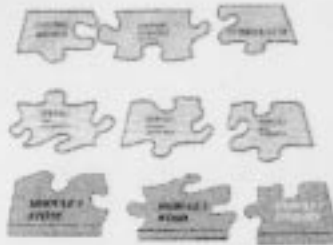
# PUBLICATIONS

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### Technical Advice Notes (TANs)

We continue with the review of the Technical Advice Notes issued by Historic Scotland as an occasional series of advice leaflets on practical and technical issues, which arise in the care and conservation of historic buildings and monuments in Scotland. They provide guidance on the principles involved in a particular issue and are not intended to be used as prescriptive documents or as specifications on site.



#### TAN 3 PERFORMANCE STANDARDS FOR TIMBER SASH AND CASE WINDOWS

This particular Note is designed to inform Historic Scotland staff and others when considering proposals or requests to alter traditional sash and case windows or to replace them with windows of modern design.

By considering the range of performance standards currently applicable to any type of window and evaluating the

performance of traditional sash and case windows against these standards this Note concludes that:

- Traditional sash and case windows can provide modern standards of comfort and convenience
- Many existing sash and case windows require no treatment other than good regular maintenance.
- Where feasible, the upgrading of existing windows and the fitting of an effective weather-stripping system is likely to provide the most cost-effective solution to commonly occurring problems.
- Straightforward double glazing of traditional sashes is not in itself a solution to most of the problems. Effective weather-stripping is essential if performance is to be substantially improved.
- The provision of weather-stripping in conjunction with secondary internal windows will provide the highest standards of performance under all categories.
- Safety and security requirements can be met by original windows supplemented where necessary by modern fittings.



- Where replacement of original windows is unavoidable, and suitable off-the-shelf replicas are not available, initial costs of historically correct designs may be higher than for other (unacceptable) types. However full life cycle costs in use for timber sash and case windows are likely to be less than for replacement windows of other types and materials.

In the case of listed buildings or buildings in conservation areas, listed building consent or conservation area consent should be required where works would involve a change in the appearance of the windows.

#### **TAN 4 THATCH AND THATCHING TECHNIQUES: A Guide to Conserving Scottish Thatching Techniques**

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Recently, the term “thatch” has come to be used in a restricted sense which belies the wide diversity of natural materials that have in the past provided indigenous roof coverings for Scotland. This lack of vernacular sensitivity has been exacerbated by the use of alien materials and imported construction techniques. Such a combination of factors has led to considerable loss of local character and traditional building forms.

This is not a new phenomenon: it is, rather, the continuation of a process which started at the beginning of the last century when “alternative” roofing materials such as slate and tile became more readily and economically available. Consequently, many roof forms changed in appearance and now it is only with careful examination and interpretation of the remaining built evidence that these changes can be traced. Surviving examples of Scottish thatch have, therefore, a significant place in Scotland’s inventory of historic buildings and should be cherished accordingly

This Technical Advice Note sets out to present sound guidance on the topic and is intended for use by all those likely to encounter this aspect of Scottish traditional building where information is scant. Rooted in Dr Walker’s academic research the Note develops the authors’ analysis and interpretation of a considerable number of Historic Scotland grant-aided thatching projects around the country. It offers, therefore, a unique insight into the variety of historic Scottish thatches and thatching techniques.

Through promoting a greater understanding of the various materials which have been used – and how they were used – owners, practitioners, planners, decision-makers, education training providers and others can benefit from the guidance. Through this shared insight, it is hoped that one of Scotland’s richest and most varied vernacular techniques can be more widely appreciated.

#### **TAN 5 THE HEBRIDEAN BLACKHOUSE**

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When I first encountered the Hebridean Blackhouse at No 42 Arnol, Lewis, during the early 1970s, I was about to enter a close association with a building which was to last almost 25 years.

As a Property in Care of Historic Scotland on behalf of the Secretary of State for Scotland, the Blackhouse has been maintained by the state since 1962. It was my privilege to lead that programme for over 10 years. During that time the sophistication of the building’s design and its functionalism always impressed.

It had been restored from its ailing state and given a major new lease of life as a visitor attraction. It was, however, kept as intact as it could be so that its purpose, characteristics and form could be readily appreciated by all those who viewed it.

As with all buildings, the cycle of routine maintenance occasionally gives way to the need for a more omnibus overhaul. Such a need arose during Spring/Summer 1990 when a full programme of works had to be devised and pursued. This approach also provided an ideal opportunity to undertake a fuller and more intense analysis of the structure and its detail than was possible during the major 1960s work programme.

By combining practical hands-on experience with academic research and analysis, this Guide sets out to present a deeper understanding of an extremely cultured piece of architecture, despite its outward appearance. It is offered to practitioners as an aid to interpretation and understanding in anticipation that it will provide an effective model for others to follow in the care and preservation of similar indigenous building types.

#### **TAN 6 EARTH STRUCTURES AND CONSTRUCTION IN SCOTLAND: A Guide to the Recognition and Conservation of Earth Technology in Scottish Buildings**

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My first serious encounter of the use of clay as a structural material occurred during the late 1960s when, as an architectural student, I undertook a study of farm buildings in upland Angus. Until that point my awareness was limited by a lack of knowledge and understanding. Hitherto, clay had only been recognisable as a structural material through illustrations of vernacular buildings from the middle east and it took me some time to recognise what the mortar materials were in the partially collapsed buildings that I was studying.

With a greater understanding came the recognition that, in addition to vernacular buildings, a broader use of earth structures were also to be found in major architectural and civil engineering projects.

As an international material, earth provides the ultimate “green” construction substance. However there remains a considerable amount of professional ignorance and misunderstanding of the material. And, with so many other traditional construction techniques, we are currently in the process of having to relearn much of what we were once familiar.

Survey and analysis can help, but the best experience will be gained from undertaking experimental work in connection with historical studies. In an attempt to relearn some

of the lost techniques Historic Scotland initiated an experimental earth structure research project in 1996. At three sites around Scotland (Culzean, Battleby and Fort George) test walls and panels have been constructed. These will enable us to monitor, over time, weathering mechanisms, moisture movement and sinkage.

Inevitably, such an approach is a great simplification of what was an infinitely variable use of the material around the country. But it will enable us to start exploring this significant material in a serious manner. Through relearning from analysing emerging faults, and the techniques used in undertaking the building and repair work, it is anticipated that we will eventually be able to offer a greater understanding and awareness of the traditional craft skills required to effectively work with the various mixes.

This Technical Advice Note, the sixth in the series, attempts to provide a preliminary look at what the material is, and how it was used. It also tries to set the scene in such a way that earth, in all its forms might be used to a greater extent in the future. Through building upon the knowledge amassed through Dr Walkers long standing academic studies, and practical Historic Scotland casework experience, the intention is to help professionals, and education and training providers, working in the field of architectural conservation in Scotland gain a better understanding of what is involved.

It is also recognised that the TAN's content will have an international significance. Perhaps, for the first time, this will enable the Scottish perspective to be taken into account along with that from other countries where a greater understanding of the material is much more acute than here.

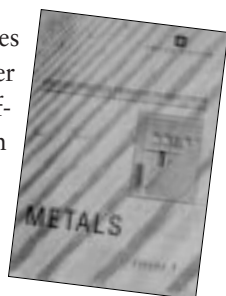
INGVAL MAXWELL  
Director, TCRE

For further information on TCRE's publications, other services and to order, contact: TCRE Division/Scottish Conservation Bureau, Historic Scotland, Longmore House, Salisbury Place, Edinburgh EH9 1SH. Tel: 0131 668 8668, Fax: 0131 668 8669.

## English Heritage Launches New Technical & Scientific Journal for Building Conservation

English Heritage launched a new series of Research Transactions last summer to make more widely available the scientific results of its strategic technical research programme.

The inaugural volume on *Metals* covers research on cast iron, underside lead corrosion, lightning protection, cathodic



protection, lead conservation and cleaning of wrought iron. Three further volumes on *Stone and Mortar*, *Earth* and *Timber* are under preparation. It is intended to publish Transactions irregularly up to four times per year as and when there is sufficient information available on a particular topic. Future issues are planned on *Thatch* and *Architectural Ceramics*.

*Metals* is available for £30 or as a Special Offer the first four volumes for £95, a discount of £25 from James & James (Science) Publishers Ltd., 35-37 William Road, London NW1 3ER, Tel: 44 (0)171 387 8558, Fax: 44 (0)171 387 8998.

## Conservation-led Regeneration

A useful report published last autumn by English Heritage sets out its role in conservation-led regeneration. It demonstrates that conservation offers real value by providing a key to the future prosperity of many run-down areas of our towns and cities. It traces the organisation's and its predecessor's track record in regeneration from the Conservation studies of Bath, Chester, Chichester and York in 1966 through Town Schemes, conservation area grants, Conservation Area Partnerships, to today's HERS scheme (see following article). Well illustrated with pictures of many of the projects, the leaflet and further information are available from Customer Services, English Heritage, 23 Savile Row, London W1X 1AB, Tel: 0171 973 3434.

## Heritage Economic Regeneration Scheme (HERS)

A new scheme to succeed Conservation Area Partnerships as English Heritage's primary vehicle for conservation-led regeneration has recently been launched. It will make funds of £15 million available over 3 years commencing in 1999/2000. Concentration will be on neighbourhood businesses, employment-generating activities which form the focus for community prosperity, and locations where area-based assistance with building repairs will encourage local employment, homes and inward investment.

Directly relevant to the government's priorities this initiative demonstrates that conservation-led change has a vital role to play in the social and economic regeneration of our urban and rural areas.

New funds in the first year will be targeted by selective invitation at the most deprived areas of England which have not benefited from other conservation-led regeneration schemes. Close working with local authorities to address their needs and harness their commitment through matched funding will be essential.

Bidders will be required to have a wider area based strategy that co-ordinates and embraces the following key objectives:

- to rescue significant groups of grade II listed buildings or unlisted buildings in conservation areas which are at risk and make a significant contribution to local character and townscape;
- to reinforce, revitalise or renew the economic base of the area;
- to foster re-occupation of under-used upper floors of high street properties;
- to assist with building repair costs to sustain the broader social economic contribution made by neighbourhood businesses and expand employment and residential accommodation to meet local needs.

Schemes will run for 3 years. There is no upper limit for grant offers but the majority are expected to be less than £100,000 to secure a broad impact across the country. Invitations were sent out in January with submissions due in 6 months; bids assessment over the summer with offers being made in October.

**Project reports for Partners in  
Technology:  
Project Number: Cl 39/3/2866  
Specification for Materials and  
Treatments of Thatch**

The final report for this project is now available in two volumes:

*Volume 1 Fire and Thatch*

The work reported here, based on predictions from mathematical modelling of heat transfer around chimneys and measurements taken on thatched roofs, indicates that while

the majority of thatch fires are chimney related, it may not be fires in the chimney or sparks from the chimney that start the fires. Thatch fires can be associated with particular usage patterns of enclosed multi-fuel burning stoves. It has been shown that houses with a deep thatch and a central chimney with a single brick skin are most at risk. Easy to recognise warning signs of potential problems have been identified. Recommendations are made that provide a strategy to reduce the risk of fire in a thatched property. The application of chemical fire retardants has been examined. A number of developments as a consequence of the project are described.

*Volume 2 Longevity of Thatch in Relation to the Surface Properties of Straw*

This study is concerned with identifying those characteristics that can be used to quantify the potential for durability in cereal straw used for thatching. The resistance to decay and degradation of wheat straw is directly related to the integrity and barrier properties of the cuticular layer and the ability to rapidly shed water. Methods for measuring the performance of different straw have been examined.

Optical and scanning electron microscopy have been used to examine stem surfaces and structure. Differences between straw samples through variety, environment, husbandry and post harvest treatments have all been identified.

Elemental analyses, using X-ray spectroscopy has made it possible to identify and locate silica bodies (phytoliths) distributed on stem surfaces. The change in relationship of phytoliths and trichomes at the nodes has been explored using this technique. New insights into the relationship of wax, trichomes and phytoliths have been achieved.

Volume 1 @ £40 per copy inclusive of postage.

Volume 2 @ £50 per copy inclusive of postage.

To order copies of the report please contact:

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at BRE Garston, Hertfordshire

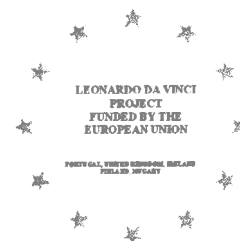
*Papers will include:*

- Surveys on cost effectiveness
- Policy on conservation and regeneration
- Analysis of repair and maintenance cycles • Prediction of life cycle costs
- Statutory influences • Training and case studies.

There will be demonstrations of current work and in the evening a tour of BRE facilities followed by the Conference Dinner.

**On Saturday 6 November there will be a conservation study tour to local buildings and sites**

*For further information contact Robin Rolfe or Graham Lee  
COTAC, 24th floor, Portland House, Stag Place, London SW1E 5EE  
Tel 0171 973 3615, Fax 0171 973 3656, Email: cotac@tcp.co.uk*



## HERITAGE'99 OPEN DAYS

Saturday 11 – Sunday 12 September

### OPEN MORE DOORS FOR HERITAGE OPEN DAYS '99!

Heritage Open Days '99 when hundreds of buildings throughout England which are of architectural, cultural or historic interest open their doors to the public for free is to be held on Saturday 11th and Sunday 12th September 1999. Many of these buildings are not usually open at all or otherwise charge for admission.

Co-ordinated by the Civic Trust and part funded by the Department for Culture, Media and Sport, the event forms part of European Heritage Days in which over 40 countries participate. There are similar events in Scotland throughout September, in Wales and Northern Ireland on 11th and 12th September and in London on 18th and 19th September.

In 1998 over 600,000 visits were made to the 1700 properties and events which took part across England. A vast range of buildings opened including central and local government sites, castles, mills, swimming baths, factories, caves and tunnels, private houses and churches. A number of gardens opened for the weekend and there were also events such as town walks, talks about specific sites – even a celebration of seaside history!

For further information and/or to register your interest in taking part contact:

Diane Clements, The Civic Trust,  
17 Carlton House Terrace,  
London, SW1Y 5AW  
Telephone 0171 930 0914 Fax 0171 321 0180  
email: pride@civictrust.org.uk



*for Better Places*



THE EUROPEAN  
HERITAGE DAYS



## **13TH INTERNATIONAL COURSE ON THE TECHNOLOGY OF STONE CONSERVATION**

**Thursday–Friday, 15 April–2 July 1999**

The course has an interdisciplinary approach and is addressed to all professionals involved in the conservation of historic stone material. Organisation: ICCROM (Rome) in collaboration with the UNESCO Venice Office, Venetian Superintendencies and the University Institute of Architecture of Venice (IUAV).

*Address:* ICCROM Training & Fellowship Programme Office, 13, Via di S. Michele, Rome, Italy  
Tel: 39 06 585 531 Fax 39 06 5855 3349, e-mail: training@iccrom.org

## **2ND INTERNATIONAL WORKSHOP ON INTEGRATED TERRITORIAL AND URBAN CONSERVATION (ITUC 99)**

**Thursday–Friday, 13 May–25 June 1999 Rome**

The workshop is meant to assist individuals to improve their ability to manage historic cities and territories.

Organisation: ICCROM

*Address:* ICCROM Training & Fellowship Programme Office, 13, Via di S. Michele, Rome, Italy  
Tel: 39 06 585 531 Fax 39 06 5855 3349, e-mail: training@iccrom.org

## **REVERSIBILITY - DOES IT EXIST?**

**Wednesday–Friday, 8–10 September 1999  
London**

Conference

*Address:* Sara Caroll, Conference Organiser, Department of Conservation, The British Museum, Great Russell Street, London WC 1B3 DG, United Kingdom  
Fax 00 44 1 71 3 23 86 36, e-mail: conservation@british-museum.ac.uk

## **CROSS-PROFESSIONAL BUILDING CONSERVATION CONFERENCE WILL FEATURE ALL THE PROFESSIONS**

The third National Conservation Conference will feature speakers from the main professions involved in building conservation – in keeping with the cross-professional emphasis of the event. 'Conservation: Building the Future on the Past' will explore how conservationists can continue to evolve a working conservation philosophy and develop techniques.

Up to 300 conservation professionals are expected to attend the day-long Conference which will be held at RIBA Headquarters, 66 Portland Place, London W1 on Thursday 13 May. RIBA President David Rock will welcome the delegates to the Conference, to be chaired by the eminent architect Donald Insall.

*Speakers will include:*

ALAN BAXTER, Consulting Engineer to the Dean and Chapter of St Pauls Cathedral and in charge of masterplanning and engineering at Poundbury

STEPHEN BOND, Chartered Building Surveyor and consultant to Historic Royal Palaces; Director of the regeneration scheme for the environs, Tower of London

GEORGE FERGUSON, Chartered Architect and Managing Director, Ferguson Mann, Bristol

JUKKA JOKILEHTO, Finnish architect and Assistant to the Director General of the International Centre for the Study of the Preservation and the Restoration of Cultural Property (ICCROM), Rome. Author of *The History of Architectural Conservation*, to be published by Butterworth-Heinemann later this year.

The Conference is organised by the Royal Institute of British Architects (RIBA) South East Region and Associated Professional Seminars.

It is supported by the Conference on Training in Architectural Conservation (COTAC); English Heritage; the Institute of Historic Buildings Conservation (IHBC); the National Trust; the RIBA; the Royal Institution of Chartered Surveyors (RICS); and the Society for the Protection of Ancient Buildings (SPAB).

Sponsors of the Conference include *The Architects Journal*, Sinclair Foundry Products, The Traditional English Conservatory Company, and Ventrolla Ltd.

**If you would like to attend the  
National Conservation Conference,  
fax Linda Neusten, 01892 513865  
to request an application form.**

## CALL FOR PAPERS

incorporating a Special Session

### *The Revival of Dresden*

22–24 June 1999

Dresden Germany

Organised by

Wessex Institute of Technology,  
Southampton, UK

Technical University of Dresden,  
Germany

Sixth International Conference

## STREMAH 99

*Structural Studies, Repairs and  
Maintenance of Historical Buildings*

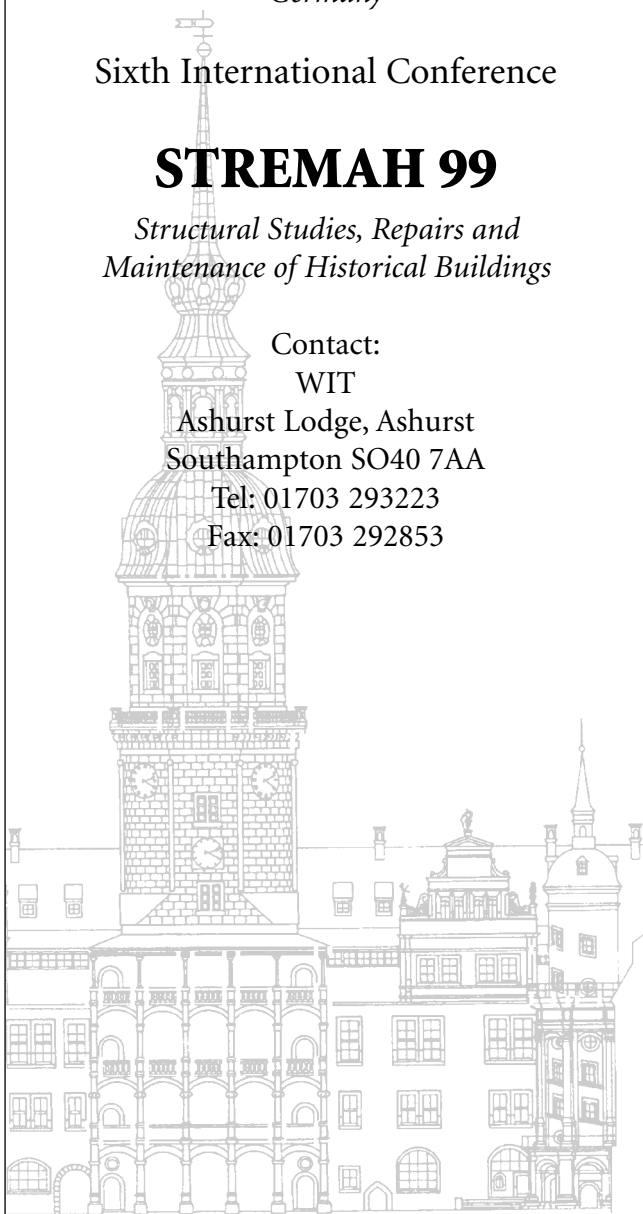
Contact:

WIT

Ashurst Lodge, Ashurst  
Southampton SO40 7AA

Tel: 01703 293223

Fax: 01703 292853



## CONSERVATION – MAKING IT HAPPEN

### Institute of Historic Building Conservation National Annual School Cardiff, June 10–13, 1999

The Institute of Historic Building Conservation will hold their 1999 National Annual School in Cardiff's City Hall between June 10-13th. This year's theme will be slightly different from the usual. It will focus on the processes involved in decision making, into what work will be appropriate, down to managing the implementation of it. This combines to some extent the commercial aspects of conservation with the process of ensuring that historic buildings and proposals made for them are what they deserve in all respects. The conservation and management plan concept will gel all these aspects together. Today such plans are seen as an almost essential ingredient of the procurement process and the impetus for this has come from the Heritage Lottery Fund. Talking about this will be KATE CLARK of English Heritage who advised the HLF on this matter and drafted their official guidance note.

Another notable speaker who should spark a great deal of interest is CHRIS WATSON whose credentials for talking about project management comes from his success in managing the restoration of Windsor Castle after the fire. Funding is a critical part of the process and this will be studied with presentations made by representatives of most key funding bodies. Other topics include surveying, recording, specifying, tendering and contracts and the selection and appointment of contractors and consultants. There will also be an exhibition of conservation services.

The Chair of the Organising Committee, RICHARD SPENCER DEAN said "This will be the first time that this national event will have met in the Welsh capital which has an abundance of notable historic buildings. We have organised a diverse range of study tours in and around Cardiff which include Cardiff Castle, Tondy Iron Works, Sker House and Zoar Chapel."

JOHN EDWARDS, Deputy Chair of the Organising Committee added, "Looking at the programme you will see that this event is very much like a checklist of what you must go through in order to properly consider work to historic buildings and then to implement it successfully and efficiently; very often this know-how is essential if external funding is to be obtained."

The cost of the conference, including accommodation and meals represents excellent value at under £300.00.

Contact Sue Tomlinson for a booking form on  
E-mail: IHBC99@aol.com Tel/Fax: 01446 771423

Press Contact: John Edwards

Telephone: 01222 788359 (O) or 01222 253811 (H)

E-mail: JohnE@cardiff.gov.uk

Richard Spencer Dean: Telephone: 01443 208046

E-mail: RSpencDean@aol.com



# THE BUILDING CRAFTS COLLEGE

The Building Crafts College was founded in 1893 by the Worshipful Company of Carpenters, a City of London Livery, whose building craft traditions can be traced back to the Middle Ages. The earliest mention of the Master Carpenter is in 1271 and a Guild of Carpenters was almost certainly in existence by that time.

Timber was the predominant building material until the Great Fire of London. For several centuries, members of the Carpenters' Company were therefore the architects, structural engineers and master builders of medieval times. All the City Guilds bore significant responsibilities towards their members for the furtherance of their trade and many still actively support these ancient craft traditions.

For many years, the Building Crafts College, originally known as the Building Trades Training School, provided instruction in a range of building-related disciplines, with the active participation of several other London Livery Companies. The College was then the only institution in London where such instruction was available. The College remains the Carpenters' Company's principal charitable institution, although the wider support of other Liveries is maintained through bursaries and awards to students.

During the Second World War, the College trained Servicemen as Carpenters, Joiners and Metalworkers, and subsequently offered resettlement courses before reverting to apprenticeships for the construction industry. The emphasis in the immediate post-war years on comprehensive redevelopment and the use of steel and concrete,

reduced the perceived demand for some of the traditional building crafts. Furthermore, the original College building, although it survived intact, had nonetheless been significantly weakened by war damage and it became uneconomic to maintain. The decision was therefore taken to rebuild the facilities in the late 1960s and to concentrate on a narrower range of building skills.

The College now offers courses in Wood Trades and Stonemasonry, embracing the National Vocational Qualification System at Levels 2 and 3 in Bench Joinery and Stonemasonry and providing City & Guilds Diploma level courses in Fine Woodwork and Advanced Stonemasonry. The Diploma courses are full-time courses of one or two years duration, while the NVQ courses are offered on a block- or day-release basis. At NVQ Level 3, courses are available as part of Modern Apprenticeship schemes. Conservation modules are also available and progression routes have been developed for those seeking higher-level qualifications in the conservation sector. As part of this process, the skills base of the College is once again being expanded in collaboration with other COTAC network members, to provide a broader understanding of other traditional building crafts.

***For further information please contact John Taylor, Director, Building Crafts College, 153 Great Titchfield Street, London W1P 7FR, Telephone 0171 636 0480, or visit the Carpenters' Company Web site: <http://www.TheCarpentersCompany.co.uk>***

## TIMBER 2000 CARPENTERS' COMPANY MILLENNIUM SEMINAR Wednesday 20 October 1999

A one day seminar on traditional and innovative uses of timber in the construction industry to be held in the Livery Hall of the Worshipful Company of Carpenters, followed by a study tour and reception in the Globe Theatre. The seminar will draw heavily on practical examples of conservation practice and on contemporary new work submitted for the prestigious Carpenters Awards.

*Key speakers include:*

Dr. Charles Brown, Giles Down, Roger Venables, Jack Bonnington, Peter Ross, Peter McCurdy and Sir Michael Hopkins.

*For further information please contact*

THE CARPENTERS' COMPANY, 1, THROGMORTON AVENUE, LONDON EC2N 2JJ

# WESSEX INSTITUTE OF TECHNOLOGY (WIT) CENTRE OF EXCELLENCE IN ENGINEERING RESEARCH AND TRAINING

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The Wessex Institute of Technology is a Research and Training Centre with an international reputation for engineering excellence. Based in the heart of the New Forest in the South of England, the Institute offers a tranquil environment in which to carry out flexible research programmes and other training activities.

An internationally recognised research team has been established at the Institute and the facilities available for research include the latest computers and a specialised library dealing with Computational Methods in Engineering. Within the Institute there are research groups in the broad areas of Solid Mechanics, Fluid Mechanics and Advanced Computing.

## ACADEMIC AWARDS

The Institute provides programmes of study leading to a University Doctor of Philosophy (PhD) degree and a University Master of Philosophy degree (MPhil).

## RESEARCH FELLOWS

Researchers, especially those from other countries, may benefit from this programme by attending the Institute for periods of one year or more. During this time they can take advantage of all courses and conferences that are being run by the Institute and carry out a programme of research under the supervision of a senior member of staff.

## PUBLICATIONS AND EVENTS

The Institute arranges a programme of Conferences and publishes books on engineering and architectural matters. Of particular interest to conservation are the Stremah 99 conference in Dresden Germany 22-24 June and Giorgio Croci's book on the Conservation and Structural Restoration of Architectural Heritage.

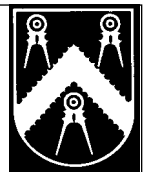
**For further information contact the Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA Tel: 01703 293223 Fax: 01703 292853, web site: <http://www.wessex.ac.uk>**

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## THE CARPENTERS' AWARD 1999

**For excellence in the design and  
craftsmanship of timber**



*The Award is open to anyone connected with a specific construction, joinery or building renovation project in the United Kingdom or Northern Ireland, completed between 1st April 1997 - 31st March 1998. This includes building owners, developers, architects, structural engineers, contractors, joiners, carpenters, timber merchants, importers or timber growers.*

*The Assessors look for outstanding craftsmanship and design skills in:  
Joinery  
Timber Construction  
The Conservation of Woodwork*

Obtain an entry form from the Award Organiser on Tel/Fax: 0171 727 9474  
E-mail: [www.thecarpenterscompany.co.uk](http://www.thecarpenterscompany.co.uk)

Will it take much time to enter?

This involves indicating which Award category or categories you wish to enter, including brief details describing the work (an A4 sheet), plus six photographs of the project. The owner's permission to enter the work is also required.

**Send your entry as soon as possible, but no later than the closing date of 31st May 1999**



## **ESSEX TRADITIONAL BUILDING SKILLS TRAINING COURSES 1999 SEASON**

As part of the education work of the Essex Historic Buildings and Design Section, a further series of hands-on practical courses has been designed to introduce people involved in the construction industry and conservation professionals, to traditional building materials and methods. Courses for the season include:

4-5 May. Wattle & Daub - Cost £130 for two days.

CITB funding maybe available for the courses. Details of b&b will be forwarded on request to anyone not within daily travelling distance. Venue: Cressing Temple, near Witham, Essex. Further information from Anne Holden, Historic Buildings & Design Section, Essex County Council, Chelmsford CM1 1LF Tel: 01245 437666.

### **CRRESSING TEMPLE CRAFT DAYS 1999**

29 June. Caring for the Parish Church  
20 July. Basic Maintenance of Historic Houses.  
9 September. Maintaining Public Houses.

Cost for each day will be £30-35 inc lunch & refreshments. Venue: Cressing Temple, nr Braintree, Essex. Further information from Natalie Drewett, Historic Buildings & Design Section, Essex County Council, Chelmsford CM1 1LF Tel: 01245 437644.

### **GEORGIAN GROUP DAY COURSES**

There is a continuation of an education initiative by the Georgian Group in the form of day courses on Georgian architecture aimed at people working in the field of historic building conservation and restoration. The events are held on Tuesdays at The Georgian Group, 6 Fitzroy Square, London. Tickets available for the individual day courses up to 22 June - availability is limited and demand likely to be considerable. Cost: £40.00 or £30.00 for full-time students (inc. lunch & refreshments).

25 May - Georgian Architectural Styles I: Sir John Soane  
22 June - The Georgian Interior  
27 July - Georgian details I: iron in the Georgian house.  
21 September - Regional Study Day  
19 October - Annual Symposium  
23 November - Georgian churches.

Further details from William Palm, The Georgian Group, 6 Fitzroy Square, London W1P 6DX. Tel: 0171 387 1720. Fax: 0171 387 1721.

### **UNIVERSITY OF OXFORD, DEPARTMENT FOR CONTINUING EDUCATION**

Planning and the Historic Environment Conference - Quality Assessment in Conservation - Friday 4 June 1999  
At Rewley House, 1 Wellington Square, Oxford, Director of Studies: Dr Malcolm Airs

Attempts to quantify and measure quality are becoming increasingly important in all aspects of public life and it is clear that the concepts and the consequences need to be addressed as a matter of urgency. The annual day school

this year will focus on the implications of quality assessment for conservation and will use the experience of those leading the way in a number of different areas to explain what it means in practice and how it can be employed effectively. There will be ample opportunity for discussion and the day should appeal to a wide variety of professional practitioners.

If you would like further details please contact your the Administrative Assistant, Day and Weekend Schools, OUDGE, 1 Wellington Square, Oxford OX2 2JA. Tel: (0)1865 270368.

The following courses are run as part of the Postgraduate Diploma and Master of Studies in Professional Archaeology, but are open to all.

31 May- 4 June 1999: Building Survey Week  
21-25 June 1999: Archaeology Survey Week  
21- 22 October 1999: Archaeological Organisations, Core Management issues  
30 November 1999: Urban Archaeology  
13-14 December 1999: Publishing Archaeology on the Web: an Introduction  
31 January-1 February 2000: Health and Safety for Archaeologists  
8-9 February 2000: Archaeology, Planning and Development  
15-16 February 2000: Aerial Photographic Interpretation  
1 March 2000: Places of Worship: Church Databases  
20-21 March 2000: Geographic Information Systems in Archaeology  
6-7 April 2000: Electronic Survey:  
11-12 May 2000: Photographing Historic Buildings  
17 May 2000: Excavation Reports: Who are they for?  
5- 9 June 2000: Building Survey Week  
26-30 June 2000: Archaeology Survey Week

For more information please contact: the Professional Archaeology Course Secretary, OUDCE, 1 Wellington Square, Oxford, OX1 2JA. Tel: 01865 280349/270360.

### **THIRD RIBA NATIONAL CONSERVATION CONFERENCE 13 MAY 1999**

The Conference will feature speakers from the main professions involved in building conservation - in keeping with the cross-professional emphasis of the event. It will explore how conservationists can continue to evolve a working conservation philosophy and develop techniques. The Conference is organised by the RIBA South East Region and supported by IHBC, COTAC, English Heritage, the National Trust, RIBA, RICS, SPAB. At: RIBA HQ, 66 Portland Place. For further details see enclosed leaflet or ring 01342 835295.

### **SPAB SPRING 1999 REPAIR COURSE 10-15 MAY 1999**

This long established, highly respected annual six-day course intended for those starting out on a career in conservation but equally popular with those with some experience already. Approved by the CITB and meets CPD

requirements for architects and surveyors. Lectures illustrate conservative repair by proven methods promoted by the Society over the last 120 years. Includes site visits in the London area and a two day tour with overnight stay in a different region to study repairs in action. Venue: SPAB HQ, 37 Spital Square, London Cost likely to be around £500.00 inclusive of lectures, papers, refreshments, travel and accommodation when travelling but not overnight accommodation in London.

Further details from: Education Officer, Society for the Protection of Ancient Buildings, 37 Spital Square, London E1 6DY Tel: 0171 377 1644. Fax: 0171 247 5296.

### **SPAB TECHNICAL DAY 12 NOVEMBER 1999 - INTRODUCTORY OVERVIEW TO HISTORIC PAINT TECHNOLOGY .**

Held in conjunction with The Traditional Paint Forum. Do you know the difference between a soft distemper and oil bound water paint? Do you know what emulsion paint is? These practical based days will provide the basics of traditional paint technology for those interested. Venue Newcastle details will be sent out as confirmation of booking, closer to the event. Cost: £50.00 for the day inclusive of refreshments and papers. To book please contact: Society for the Protection of Ancient Buildings, 37 Spital Square, London E1 6DY Tel; 0171 377 1644. Fax: 0171 247 5296.

### **RICS SUSTAINING OUR HERITAGE - THE WAY FORWARD FOR ENERGY EFFICIENT HISTORIC BUILDINGS**

6 May. One day conference jointly organised by the Royal Institution of Chartered Surveyors and the Association for Environment Conscious Building to explore the way forward in Energy efficiency and Historic buildings. The conference is a positive step towards ensuring that the environmental issues relevant to historic buildings are identified, understood, developed and integrated in an appropriate and sympathetic manner. Venue: RICS, London.

Further information from: Lian Yiow, Seminar Executive, Fax: +44 (0)171-334 3844 e-mail: lyiow@rics.org.uk

### **WEALD & DOWNLAND OPEN AIR MUSEUM - BUILDING CONSERVATION COURSES 1999**

A wide range of practical workshops and seminars for surveyors, architects, craftsmen and anyone with a keen interest in building conservation and the use of historic building techniques.

4-6 May: Brickwork: historic forms of jointing and pointing

The development of jointing and pointing from the Tudor period to the 20th century. Practical sessions including

selecting materials, tools, preparation of joints for re-pointing, mortar mixes and after-care of joints. Leader: Gerard Lynch £180

12 May: Joinery by hand: sash windows  
The historical development of sash windows with practical demonstrations of traditional joinery processes. Opportunity to examine original examples from the Brooking Collection. Leaders: Ged Gardiner and Charles Brooking £60

24 June: Timber identification  
Introduction to the methods of identifying timber species visually, the preparation of samples for examination and the use of identification keys. Leader: David Woodbridge £65

25 June: Strength grading of timber  
Introduction to the methods used for the strength grading of softwoods and hardwoods, demonstration of the performance of timber under load and practical experience in the assessment of defects as defined by the British Standards BS4978 and BS57 56. Leader: David Woodbridge £65

12-14 July Traditional gauged brickwork  
A theoretical and practical course designed for practising professionals concerned with conservation and eager to have a closer knowledge of gauged brickwork. Leader: Gerard Lynch £180

15 July: Lime mortars: traditional preparation and uses  
Lectures and practical demonstrations on the traditional preparation and uses of lime mortars and the modern misconceptions about them. Leader: Gerard Lynch £65

26 July-1 August: Timber Framing From Scratch  
A superb opportunity to gain hands-on experience of timber-framing. Starting with the tree, participants carry out hand conversion by hewing and sawing, then lay out and joint the frame using only traditional tools and methods. Leader: Joe Thompson £300

18-20 October: Repair of traditionally constructed brickwork  
Causes of failure and decay and selection of methods of repair. Practical sessions including cutting out bricks, taking out defective joints, stitch repairs and re-inforcement and patch pointing using lime mortars. Leader: Gerard Lynch £180

Enquiries about these courses and others currently in the planning stage to Diana Rowsell, Training Co-ordinator on 01243 811363.

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## COURSES AVAILABLE FROM NETWORK MEMBERS

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### BOURNEMOUTH JOINT CENTRE

Bridging Certificate for Studies in Conservation – 12 weeks  
DipHE/BSc(Hons) in Building Conservation Technology  
Heritage Conservation – Dip. 2 years full time, BSc 1 further year after Dip.  
MSc/PGDip in Architectural Stonework Conservation – taught 1-year course

*Other short courses:*

Various stone restoration and conservation courses at Weymouth College Conservation Unit.  
Timber-frame repair, charcoal burning, gauged brickwork, cleaning leadwork, at Weald and Downland Museum.  
Lime courses at the Lime Centre at Morestead near Winchester.

*Contact:*

Carol Ryan, Bournemouth University,  
Department of Conservation Sciences, Dorset House, Talbot Campus, Fern Barrow, Poole, Dorset BH12 5BB. Telephone: 01202 524111. Fax: 01202 595255

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### BUILDING CRAFTS AND CONSERVATION TRUST

Short 1- to 2-day and 6-month Conservation courses for tradesmen at various training institutions throughout the county in: historic brickwork, joinery, timber frame, wattle and daub, flint, external rendering and stucco and leadwork.

*Contact:*

Mr A MacLaren, Chief Executive, Building Crafts & Conservation Trust, Kings Gate, Dover Castle, Dover, Kent CT16 1HU. Telephone: 01304 225066

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### DE MONTFORT UNIVERSITY LINCOLN SCHOOL OF APPLIED ARTS & DESIGN

Access Certificate to HE, Conservation & Restoration – 1 year + various  
MSc in Conservation Science (taught at Leicester & Lincoln) – 1year full time, 2 years part time  
MA in Conservation of Historic Objects – 1 year full time, 2 years part time  
BA(Hons) in Conservation & Restoration – 3 years

*Contact:*

School of Applied Arts & Design, De Montfort University Lincoln, Lindum Road, Lincoln LN2 1PF. Telephone: 01522 895076 Fax: 01522 895137

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### DE MONTFORT UNIVERSITY LEICESTER

MA in Architectural Conservation – 1 year full time, 2 years part time. Includes Architectural History, Conservation Law and Policy, Repair and Re-use of Historic Buildings, Garden History and Conservation.  
MSc in Conservation Science (taught at Leicester and Lincoln) – 1 year full time, 2 years part time

*Contact:*

Centre for Conservation Studies, De Montfort University Leicester, 12 Castle View, Leicester LE1 5WH Tel: 0116-253 2781

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### LAMBETH COLLEGE

Short courses in the following: Restoration of Plasterwork, Restoration of Masonry, Stained Glass and Leaded Light Work, Graining and Marbling Techniques, Decorative Paint Effects, Trompe l'Oeil, Oil and Glass Gilding, Restoration Skills for Masons and Joiners. Lengths vary from one full week to one day per week for 5–10 weeks.

Mastercrafts courses for City and Guilds/COTAC Diploma are now available in a number of major craft skills including plastering, carpentry and joinery, surface decoration and masonry – 3 years part time.

Entry requirements: Advanced craft certificate or NVQ Level 3 or substantial industrial experience.

*Contact:*

Mr L Conway, Head of School, Vauxhall Centre, Lambeth College, Belmore Street, Wandsworth Road, London SW8 2JY. Telephone: 0171-501 5010. Fax: 0171-501 5490.

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### PLYMOUTH UNIVERSITY

PgDip/MA in Architectural Conservation – 1–5 years part time.  
CPD – various subjects of interest in conservation.

*Contact:*

Mrs L Watson, Conservation Course Co-ordinator, Plymouth School of Architecture, Hoe Centre, Plymouth, Devon PL1 2AR. Telephone: 01752 233600. Fax: 01752 233634.

**SOUTH BIRMINGHAM COLLEGE**

NVQ Level 3, Restoration and Conservation in Brickwork, Carpentry, Plasterwork and Leadwork – 36 weeks full time.

**Contact:**

Mr M. Cook,  
South Birmingham College  
(Formerly Hall Green College),  
Cole Bank Road, Birmingham  
B28 8ES. Telephone: 0121-694  
5000. Fax: 0121-694 5007.

**INSTITUTE OF ADVANCED ARCHITECTURAL STUDIES, UNIVERSITY OF YORK**

The Centre for Conservation Studies has for nearly a quarter of a century been running an educational programme including:

MA Conservation Studies (Building Conservation) – 1 year full time taught; 3 years, 1 term per year.

Short courses: Courses contained within the MA programme: 1–4 days, detailed programmes available.

**Contact:**

Mr Peter Burman,  
Director of Conservation Studies,  
Institute of Advanced  
Architectural Studies, University  
of York, The King’s Manor, York  
YO1 2EP. Telephone: 01904  
433987. Fax: 01904 433949.

**BARTLETT SCHOOL OF GRADUATE STUDIES**

University College London

MSc Refurbishment Management – 44 contact days plus residential management weekends and part-residential intensive module on understanding refurbishment design, taken in 1 year full-time or 2 years part-time, including writing a research report. Can be spread over 5 years taken as a modular degree. Can be taken as a Diploma in 9 months (excludes the research report).

**Contact:**

Course Director,  
Refurbishment Management MSc,  
Bartlett School of Graduate  
Studies, University College  
London, Gower Street, London  
WC1E 6BT. Telephone: 0171 391  
1738/380 7777 Ext 5912. Fax:  
0171 916 1887. E-mail:  
bartlett.pgclerk@ucl.ac.uk

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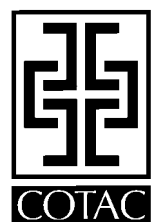
Name .....  
Title .....  
Organisation .....  
Address .....  
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and forward to:

**Mr Graham Lee**  
**Project Manager, COTAC**  
**Portland House**  
**Stag Place**  
**London SW1E 5EE**  
**Telephone: 0171-973 3615**  
**Fax: 0171-973 3656**  
**E-mail: cotac@tcp.co.uk**

Any other suggestions for articles for inclusion or improvements to future issues:

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CONFERENCE  
ON TRAINING IN  
ARCHITECTURAL  
CONSERVATION